Field Guide
to
Butterflies of Illinois

John K. Bouseman
James G. Sternburg

Illinois Natural History Survey
Manual 9

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5 April 2001

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In memory of Ellis G. MacLeod (1928–1997)

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Foreword

The purpose of this field guide is to enable the user to identify to species any butterfly found within the borders of the state of Illinois, and secondarily, through the judicious offering of references from the enormous literature about butterflies, to lead the interested readers of this guide to sources that will enable them to learn more about these most charismatic of insects.

Because most of the species included in this field guide have geographic ranges that extend far beyond the borders of Illinois, the recognition of these butterflies can serve the user of the guide well beyond the borders of the state. The butterfly faunas of states adjacent to Illinois are much like ours and this guide will serve those interested well. For example, while participating in expeditions to the Tian Shan of Kyrgyzstan (a country located in the southern part of the former Soviet Union, next to China) in 1998 and 1999, co-author John K. Bouseman saw the Mourning Cloak flying along a glacial stream in the spruce zone above the south shore of Lake Issyk Kul and saw many individuals of the Painted Lady nectaring on dandelions and acaulescent thistles in the high alpine passes there. Co-author James G. Sternburg has seen Checkered Whites, Cloudless Sulphurs, Dog Face Sulphurs, Little Yellows, and Buckeyes near Antigua, Guatemala. At Guantanamo Bay, Cuba, Sternburg saw Cloudless Sulphurs, Variegated Fritillaries, Queens, and Monarchs.

The genesis of this work arose about a decade ago in the course of discussions among the authors of this work and the late Ellis G. MacLeod. All three were professional entomologists who, as children, had developed an interest in butterflies and had never lost their passions for them. The authors regret that Ellis was unable to join us in the production of this work. It would be a better book if he had.

During the preparations for the actual writing of the guide, numerous field trips were made throughout the length and breadth of the state to search for species that we judged likely to occur but either were thought to be extirpated or had never been collected in the state. Among the results of these endeavors were the finding of the Pearly-eye for the first time in the state and the rediscovery of the Carolina Satyr after over a century of no records. We did not find the Northern Metalmark (we still think it is here) nor did we rediscover the Diana Fritillary in Illinois. Also, we have yet to start our search for the Ozark Swallowtail in Illinois. All this suggests that much remains to be done. That is true. Good hunting!

John K. Bouseman and James G. Sternburg

Acknowledgments

Many fine people have given unstinting aid to us in the course of the production of this field guide from its initial stages to its present form. The Richardson Wildlife Foundation has provided us with a “home away from home” where we were able over a 10-year period to study butterflies in the northwestern sector of the state and do most of our writing. For this, we owe an enormous debt of gratitude to Edward J. Richardson, president of the foundation, and to Terry Moyer, vice president and resident manager of the facility. Michael Jeffords of the Illinois Natural History Survey (INHS) found the means to publish this guide and provided several of his excellent slides for species descriptions. May Berenbaum, professor of entomology at the University of Illinois, encouraged us and provided needed support. Philip Nixon, extension entomologist, loaned us a slide where we sorely needed one, and Carie Nixon (INHS) provided fine drawings of butterfly anatomy. James Appleby, University of Illinois, loaned us two badly needed color slides. Tim Cashatt and Tim Vogt helped us search the collection of the Illinois State Museum for records of rare and little known species. Liane Suloway, Jocelyn Aycrigg, and Julia Chatellier (INHS) prepared the very attractive maps of distribution. Dottie Nadarski, University of Illinois, carefully typed the manuscript. Charles Warwick (INHS) performed digital magic to improve the quality of our illustrations and was responsible for the layout and editing. The manuscript benefited immensely from trenchant reviews and incisive comments that we received from May Berenbaum and Gil Waldbauer of the University of Illinois Department of Entomology. Thomas Rice (INHS) designed the dust jacket and edited and proofread the manuscript. Hearty thanks to all of the above.

On a personal note, the authors wish to thank their respective parents, Thomas and Catherine Bouseman and Paul and Eva Sternburg, for their encouragement of our early interest in butterflies. John K. Bouseman thanks Tammie and William Bouseman for their aid in the field and their understanding of his sometimes extended absences from home.

And again, thanks to Ellis MacLeod for his challenges and inspiration.

The butterflies in America are really splendid, nothing can surpass them in design, depth of colouring, or in the delicacy with which their finely powdered wings are finished. I have sometimes observed in very hot weather, when I happened to throw to the door a little greasy or soapy water, that the place thus moistened has been covered in a few minutes with butterflies of the richest and most brilliant dress. All the hues that the prism can elicit from the "parent of colours" have been there manifested, and that with such a beautifully variegated combination, as to render imitation utterly impracticable. . . . Rebecca Burland, Pike County, Illinois (ca. 1848)

How to Use This Book

The user should become familiar with the general categories into which the species treated in this work fall; for example, swallowtails, hairstreaks, blues, fritillaries, satyrs, and so on. Such familiarity will aid in the rapid recognition of butterflies observed and in the ability to turn quickly to the pertinent section of this field guide, where reference to the illustrations then will result in the narrowing of the identification to one or a few species. The **description** will give the salient features of each species, that is, size, color, wing patterns, and any special features of recognition. If any particular species is likely to be confused with other species, this will be discussed under **similar species**. A general discussion of the **habitat** where the species is likely to be encountered will follow, and then various aspects of the **natural history** are discussed: life cycle, larval hosts, and related information. This is followed by an assessment of the **status**, which is our opinion on the geographic occurrence within the state and population levels. Finally, **remarks** may give some special information about the species; for example, whether the species enjoys state or federal protection.

Maps of Distribution

Information about the distribution of the species of butterflies known to occur in Illinois is presented on the maps that accompany the individual species accounts and is in the form of county records. The sources of the information are published records of the species, specimens that have accumulated in the collection of the Illinois Natural History Survey subsequent to the publication of the *Annotated Checklist of the Butterflies of Illinois* by R.R. Irwin and J.C. Downey; and the personal experiences of the authors. The main sources of the published records have been the Irwin and Downey checklist, *The Butterflies of West Central Illinois* by Y. Sedman and D.F. Hess, and the "Season Summaries" presented in the newsletters of the Lepidopterists' Society.

The maps are indicative, not definitive, of the ranges of the various species, and they have been checked for congruence with other published maps that are inclusive of the larger geographic ranges of the species. The maps will serve as an aid to identification, enabling the user to rule out some species on the basis of range. For example, a Pearly-eye sighted north of the southern tip of Illinois and outside of the range of giant cane is almost certain to be the Northern Pearly-eye. Conversely, an Eyed Brown seen in southern Illinois is almost certainly the Appalachian Brown.

Butterfly Habitats

Forests

Many butterflies can be characterized as forest species. Although the original forest cover of Illinois was destroyed in the process of the settlement of the state, large tracts of second-growth forest exist. This is particularly true of the large river valleys such as the Mississippi, the Illinois, the Wabash, and the Ohio, and also along the major affluents of those rivers such as the Fox, DesPlaines, Rock, LaMoine, Embarras, Kaskaskia, and others.

Excellent opportunities to observe forest butterflies are available along roads through forest areas and along paths and trails in the forests. In upland forest areas, the observer will likely see Tiger Swallowtails, Spicebush Swallowtails, Giant Swallowtails, Hickory Hairstreaks, Henry's Elfins, Question Marks, Red-spotted Purples, and Little Wood Satyrs. In lowland forests Zebra Swallowtails, Commas, Hackberry Butterflies, Tawny Emperors, Mourning Cloaks, and Pearly-eyes are among those species to be expected.

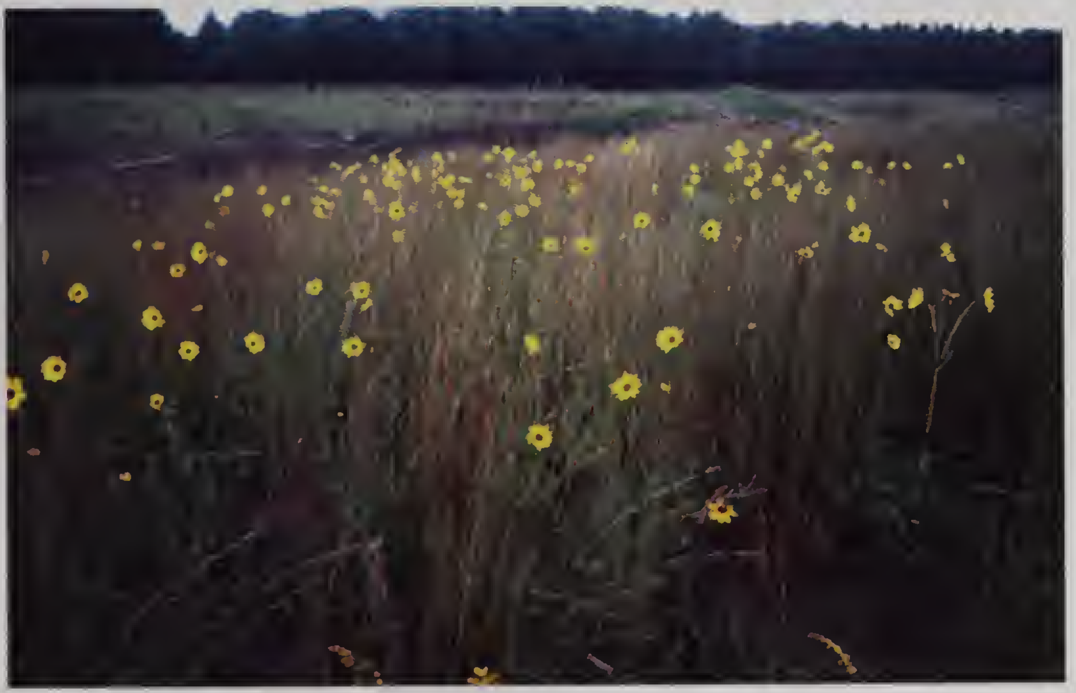
Mature upland forest, Piatt County.

Secondary forest with redbud trees, Vermilion County.

Prairies

Only small, scattered, and for the most part pitiful remnants remain of the vast prairies that covered much of presettlement Illinois and earned it the sobriquet "Prairie State." The former prairie areas have been converted to maize and soybean production. Some prairie tracts have been preserved, albeit inadvertently, in railroad rights-of-way; some dry prairies were spared because of edaphic conditions unconducive to agriculture; and others were saved due to aesthetic considerations of some landowners. Many such remnants are now conserved as nature preserves. Much effort is being expended by private landowners and by public and private organizations in attempts to restore degraded prairie remnants and to establish new prairie tracts. Prairie remnants and to some extent restorations afford excellent opportunities to observe butterflies. Among those species one may expect to see are Gray Coppers, Clouded Sulphurs, Orange Sulphurs, Silver-bordered Fritillaries, Meadow Fritillaries, Gray Hairstreaks, and Graylings. In the drier sites Olympias, Variegated Fritillaries, and Regal Fritillaries are apt to occur.

Mesic prairie with blazing stars, Lee County.



Sand prairie with western sunflowers, Henderson County. *Photo by John K. Bouseman.*

Savannas

Savannas are not a common feature of the landscapes of Illinois, and most of those remaining have suffered serious degradation by invasion of exotic plants. Intermediate in structure between forests and prairies, they offer much to the observer of butterflies. Few, if any, butterfly species are restricted in occurrence to savannas, but some butterflies may be seen there in greater numbers than elsewhere. Among these are Olympia Marbles, Coral Hairstreaks, Aphrodites, Great Spangled Fritillaries, and Regal Fritillaries.

Savanna with young oaks, Mason County.

Wetlands

Wetlands are home to some of the rarest and most localized (sedentary) species of butterflies in Illinois. In the course of the settlement of the state, the wetlands suffered enormous loss through the tiling and draining of potential agricultural areas that led to the lowering of water tables; through the channelization of streams with the consequent loss of meanders and sloughs; through the creation of systems of dikes and levees which isolated floodplains from seasonal inundation; and through the draining and filling of marshes, swamps, ponds, and prairie potholes in the process euphemistically called reclamation. However, enough wetlands remain throughout the state to offer exciting opportunities to observe and study some of Illinois' most uncommon resident species. In many parts of the state, some detective work will be necessary to locate promising wetlands, but they do exist, and they are well worth the search effort. In marshes one can hope to find Bronze Coppers, Purplish Coppers, Acadian Hairstreaks, Swamp Metalmarks, Baltimores, and Eyed Browns. In swamps one should see Viceroys and, if fortunate, Appalachian Eyed Browns. Along stream edges, Dog Face Sulphurs, Bronze Coppers, and Silvery Checkerspots are to be expected.

Marsh in dunic terrain, Iroquois County. Eyed Brown butterflies fly in upper foreground, and Appalachian Browns fly in the shady background at this site.

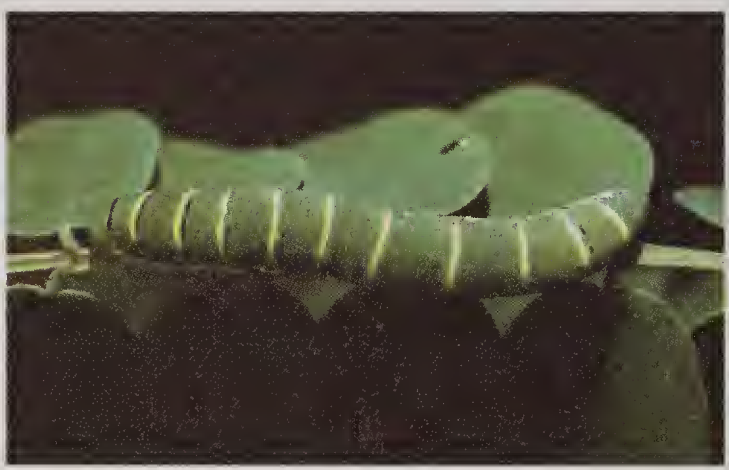
Boggy marsh, Lee County. Eyed Browns, Baltimores, and Purplish Coppers occur in this site.

Disturbed Areas

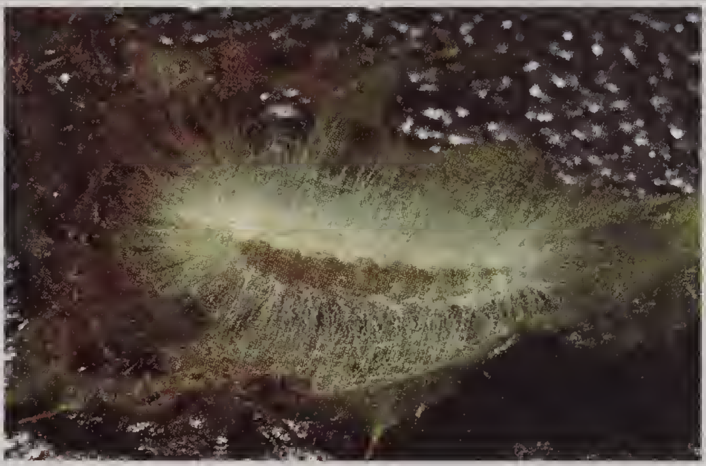
Some areas that have been highly modified by people in the social and economic development of the state nevertheless afford fine opportunities for the observation and study of a selected group of butterflies. Indeed, some have probably benefited from that development. In the gardens, parks, vacant lots, and lawns of urban and suburban areas one can readily find Black Swallowtails, Eastern Tailed-blues, Summer Azures, Monarchs, Painted Ladies, and Red Admirals. Even locations such as agricultural areas, old fields, pastures, and roadsides produce Cabbage Butterflies, American Coppers, American Painted Ladies, Painted Ladies, and Buckeyes. Indeed, in some years the Painted Lady infests soybean fields and can be present in numbers beyond counting.

Larvae of Butterflies

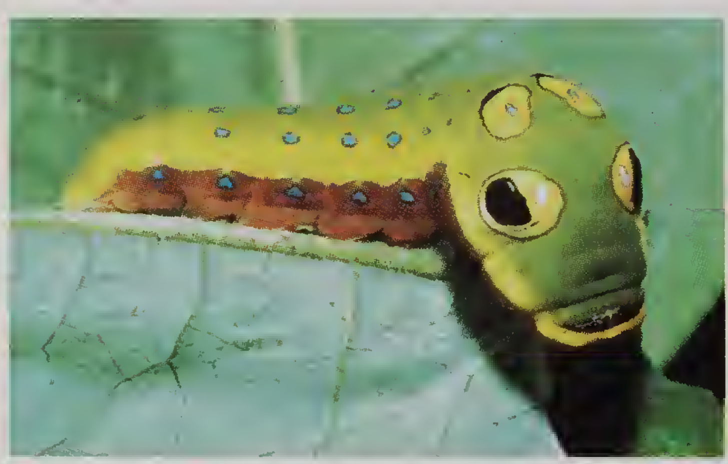
The larvae of butterflies, popularly known as caterpillars, are soft-bodied wormlike insects, frequently with spines and long hairlike setae. While some larvae can be readily identified, others require technical knowledge and expertise beyond that of most users of this text, and for this reason larvae will not be treated in detail. It is often possible to identify a larva to species by rearing it to the adult stage. If the larva is still feeding and the food plant can be found, it can be reared. This is often the best way to determine its identity. Many will be parasitized and many will turn out to be moths because these far outnumber the butterflies. Rearing can be done by slipping a fine-mesh sleeve over the plant or branch to provide protection from predators. Cuttings can be taken from the food plant and placed in a box or cage with the larva. Caterpillars should not be crowded; some species are cannibalistic. Crowding can also lead to disease. They should also have fresh food available at all times, for some species will not survive long without food. After pupation, the best results are obtained by keeping the insect under natural conditions until eclosion of the adult. More detailed information can be found in the references listed. We show a selection of larvae representing most of the families and subfamilies.



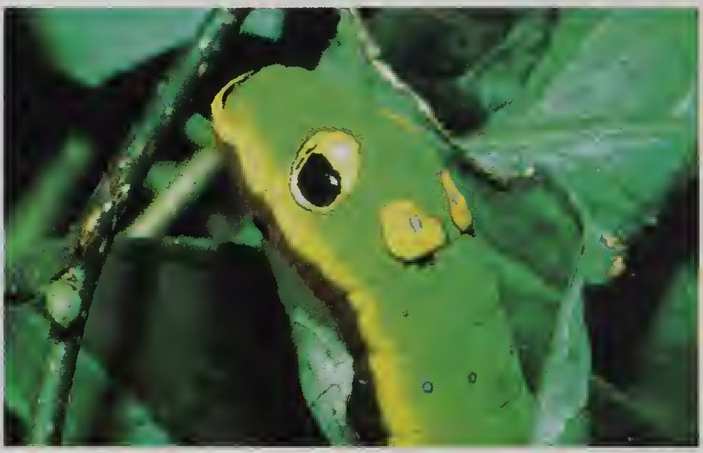
Dog Face Sulphur larva, Vermilion County, IL.



Swamp Metalmark larva, Vermilion County, IL.

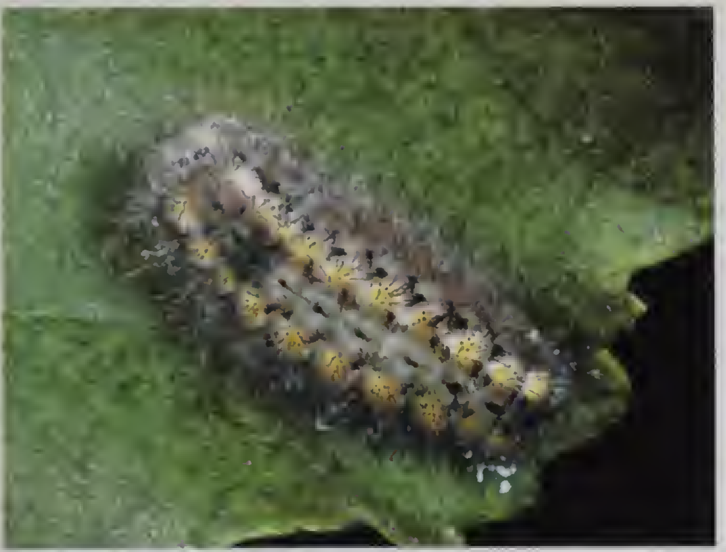


Spicebush Swallowtail larva, Piatt County, IL.

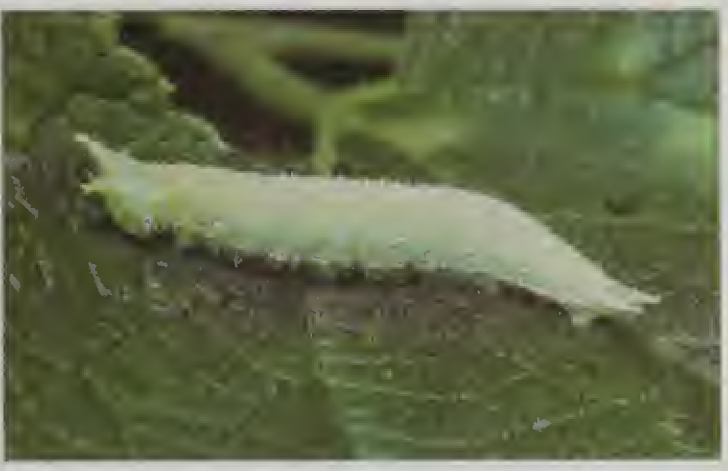


Spicebush Swallowtail larva, Piatt County, IL.

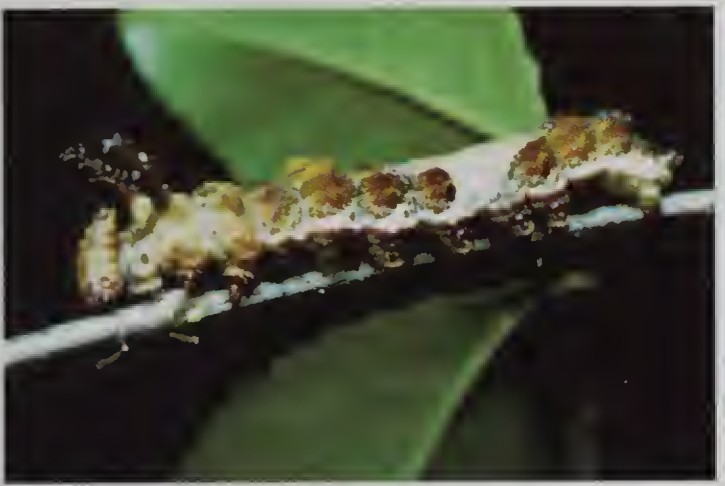
Larvae of Butterflies



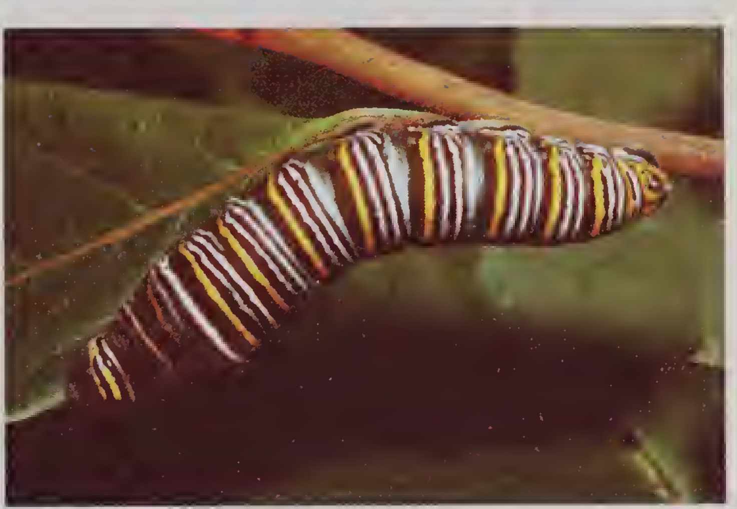
Harvester larva. *Photo by James E. Appleby.*



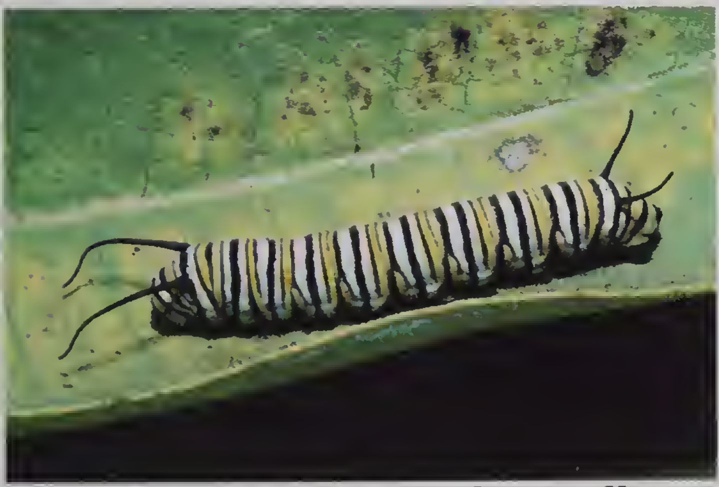
Hackberry Butterfly larva, Champaign County, IL.



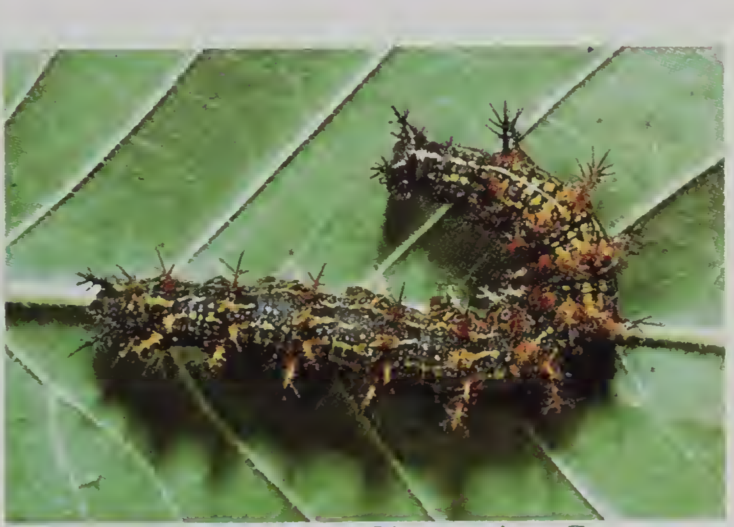
Red-spotted Purple larva, Piatt County, IL.



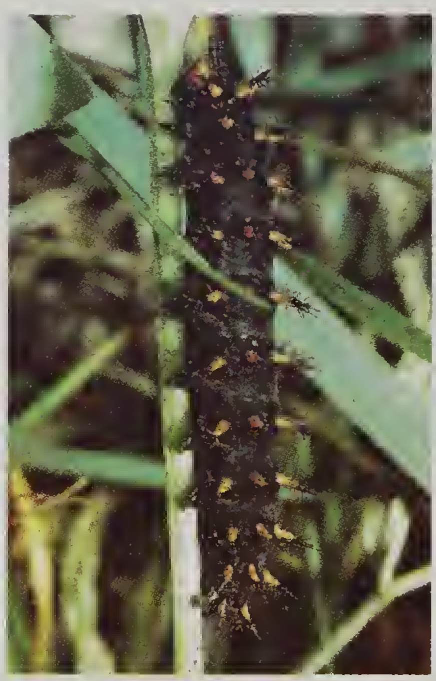
Zebra Swallowtail larva, Champaign County, IL.



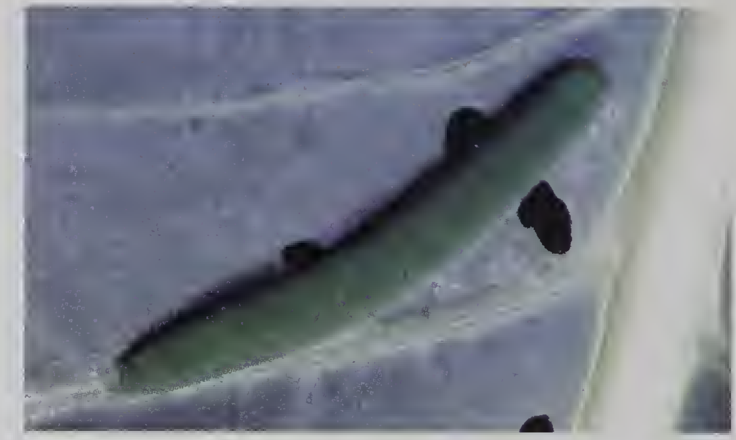
Monarch larva, Champaign County, IL.



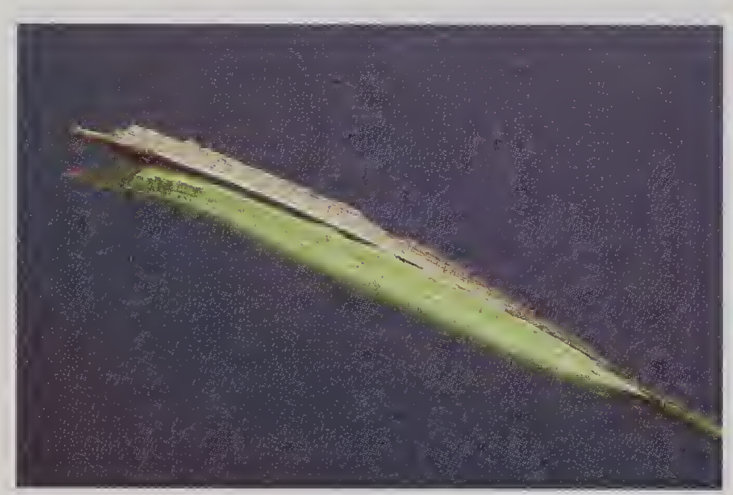
Question Mark larva, Champaign County, IL.



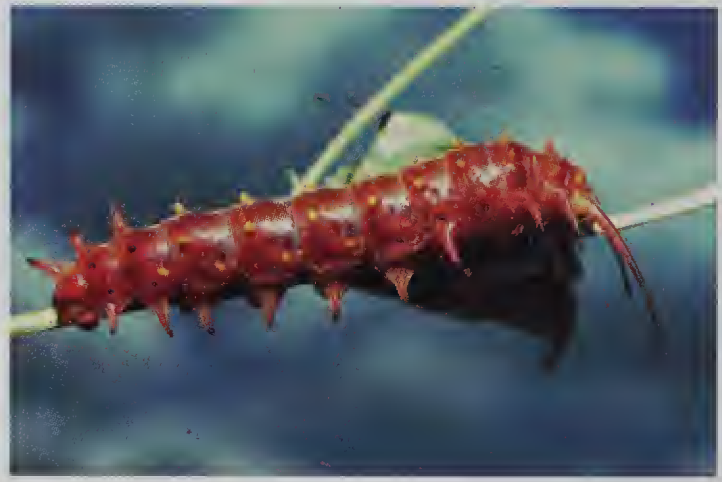
Great Spangled Fritillary larva, Pope County, IL.



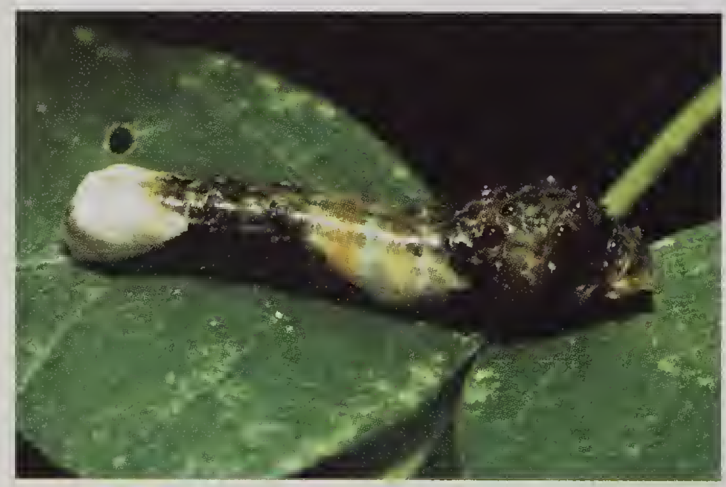
Cabbage White larva. *Photo by Philip L. Nixon.*



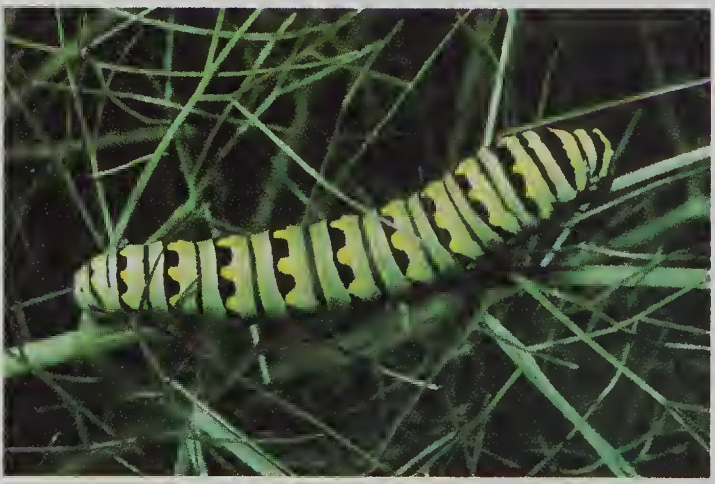
Appalachian Brown larva, Iroquois County, IL.



Pipevine Swallowtail larva, Piatt County, IL.

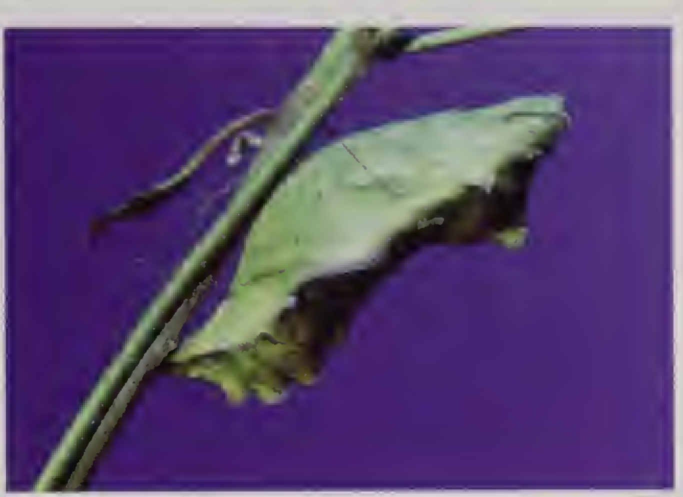


Giant Swallowtail larva, Champaign County, IL.

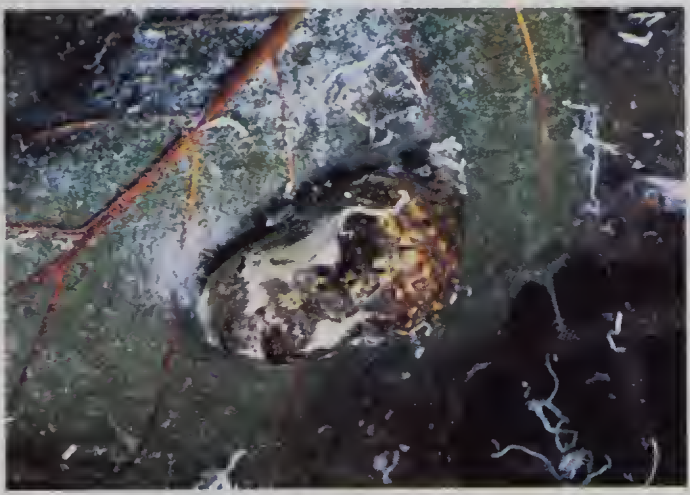


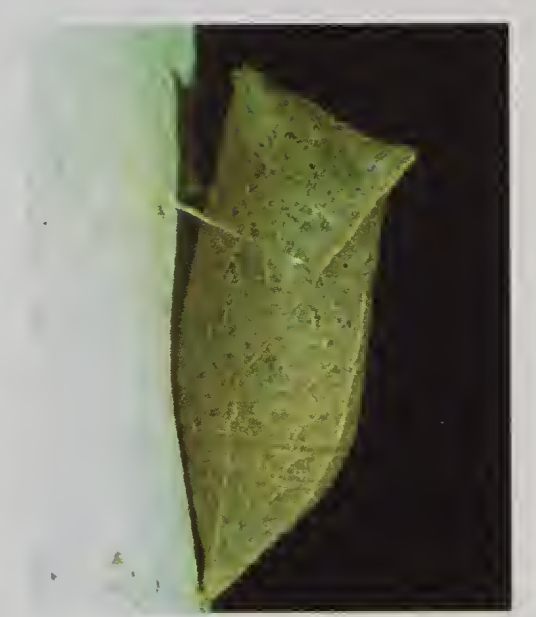
Black Swallowtail larva, Champaign County, IL.

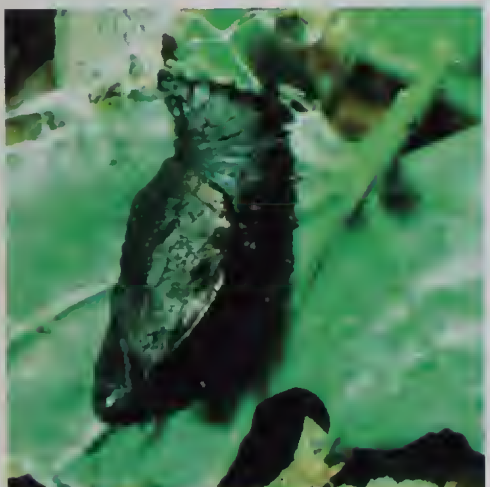
Pupae of Butterflies

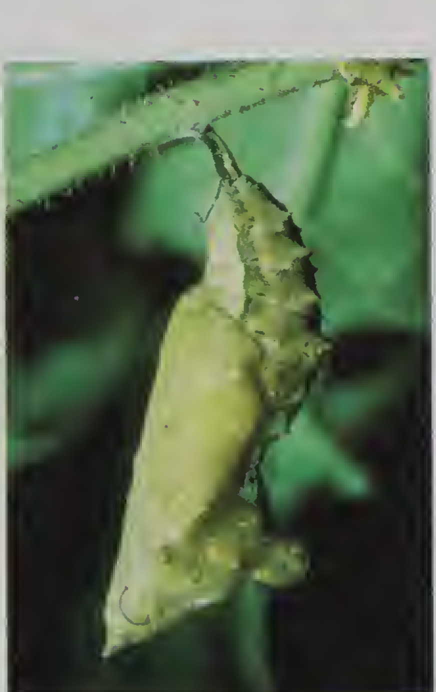

Pipevine Swallowtail pupa, Piatt County, IL.

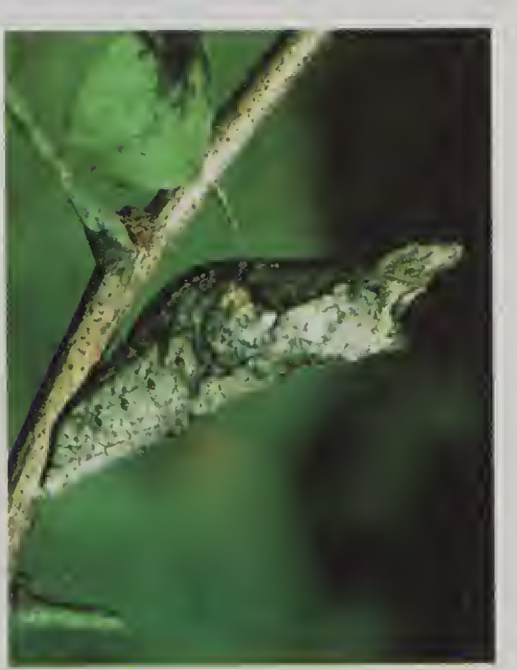
Also called the chrysalis, the pupa of a butterfly is the life stage wherein major anatomical and physiological changes occur. Two different types of pupal positioning occur among the butterflies. The species in the family Nymphalidae hang from a silken pad spun by the caterpillar prior to pupation. A group of hooks (the cremaster) at the tip of the abdomen engages the silk pad, suspending the pupa head downward. The other type of pupal suspension is characteristic of the families Papilionidae, Pieridae, Lycaenidae, and Riodinidae. With these, the pupa is supported by a silken thread acting as a girdle around the body, and by the cremaster anchored into the silken pad. These pupae rest either horizontally or head up, depending on the species. We show several examples.


Harvester pupa. *Photo by James E. Appleby.*


Zebra Swallowtail pupa, Champaign County, IL.


Great Spangled Fritillary pupa, Pope County, IL.


Question Mark pupa, Champaign County, IL.


Giant Swallowtail pupa, Champaign County, IL.

Feeding by Adult Butterflies

Unlike the larvae with their chewing mouthparts, used for feeding on solid substances, adult butterflies feed only on liquids that are sucked up by the greatly modified maxillae. These structures fit together with a tongue-and-groove apparatus to form the familiar proboscis. Mouthparts of this type are found in all butterflies and most moths. The exceptions are a few primitive mandibulate moths, and those moths with no adult mouthparts. The action of the mouthparts is generally called siphoning, but in reality they function by a sucking action.

Most species of Papilionidae, Pieridae, Lycaenidae, and Riodinidae feed on nectar. This is true of most but not all Nymphalidae, many of which never or rarely visit flowers but instead obtain nourishment from overripe fruit and fermenting sap flows. Carrion and animal dung, the latter especially from carnivores, is eagerly visited by some. Honeydew, excretions from homopterans (aphids, leafhoppers, scale insects, etc.), constitutes another food source.

Not all flowers attract butterflies. Flowers with a very deep corolla have nectar beyond the reach of even swallowtails with their long proboscis. In general, the larger species are able to feed at the greatest variety of flowers. Conversely, smaller species, such as the lycaenids with a much shorter proboscis, are restricted to flowers where the nectar tube is short and the nectar easily reached. Some examples are shown.

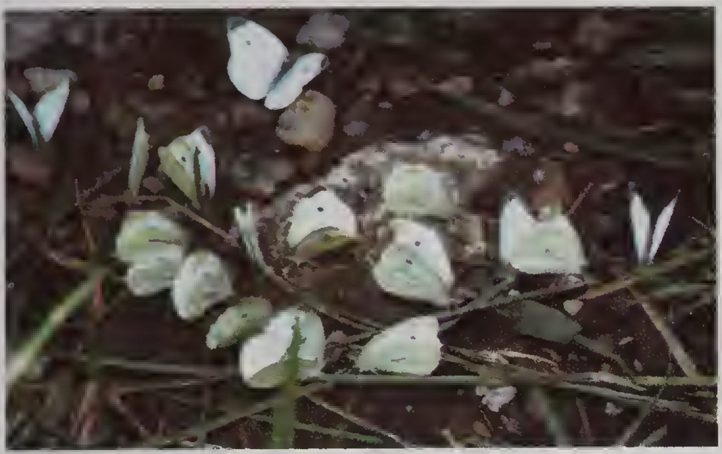
Plants whose flowers are especially important as nectar sources for butterflies include milkweeds, dogbane, phlox, New Jersey tea, asters, blazing star, thistles, red clover, ironweed, Joe-pye weed, purple coneflower, and goldenrod. This is a partial list of plants commonly visited. Many others are selected by the various species.

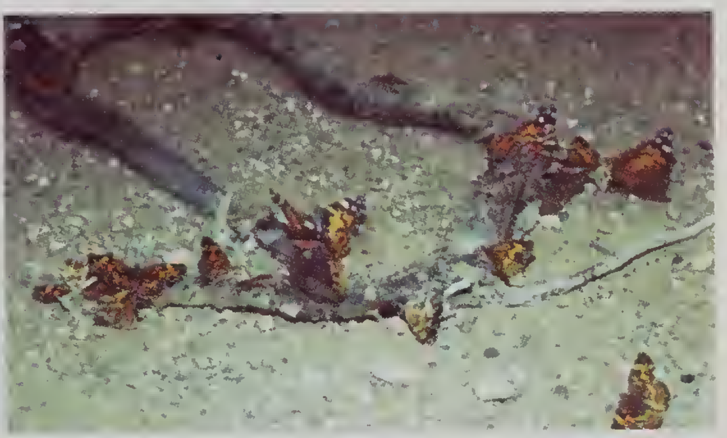
Fermenting fruit is eagerly fed upon by the angle-wings—the Red Admiral, the Red-spotted Purple, and the Mourning Cloak. Occasionally enough alcohol is consumed to cause intoxication, in which case a butterfly can be picked up without attempting to escape. Sap flows are visited by the same guild of species that are attracted to overripe fruit. Frequent visitors are the angle-wings—Red Admiral, Mourning Cloak, and the emperors.

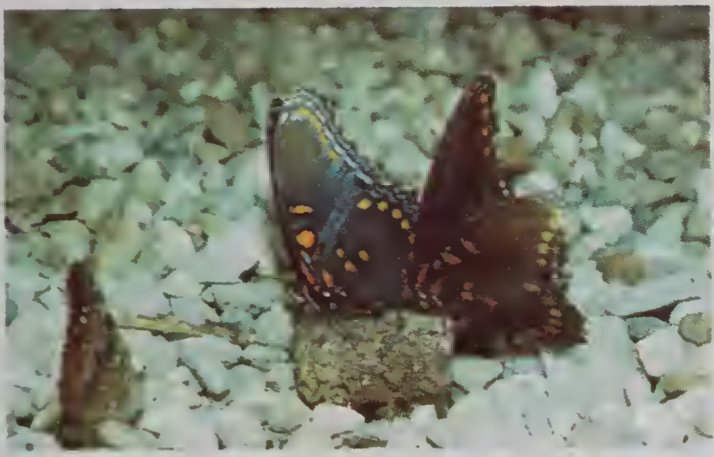
Another source for nourishment, more unpleasant to us, is animal dung, especially that from carnivores. Raccoon feces are attractive to the Hackberry Butterfly, the Tawny Emperor, and the Red-spotted Purple. Carrion will sometimes attract a surprising variety of species, even including those more likely to be found nectaring. As an example we show a road-kill snake, upon which a large number of butterflies are feeding. These include Gorgone Checkerspots, American Painted Lady, Red Admiral, and Hackberry Butterfly.

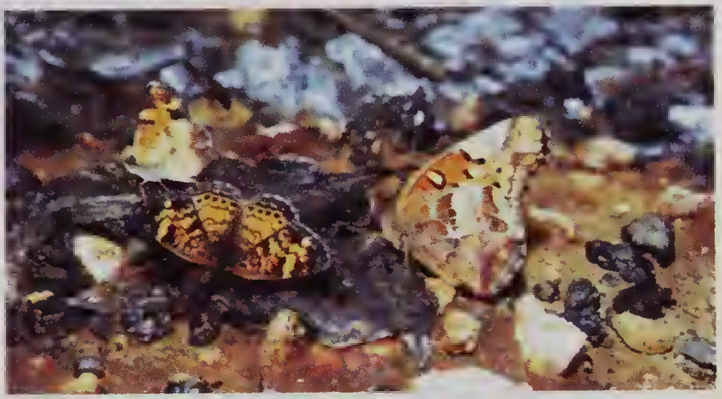
Other sources of nourishment are found in honeydew, taken by satyrs and some lycaenids. Bird droppings are also a food source for these species.

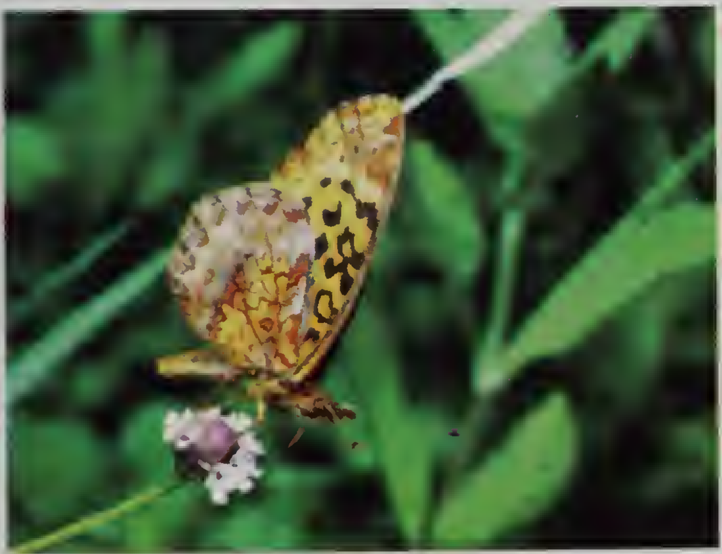
The newly emerged males of many species congregate at damp sites, often the margins of streams or lakes. These sites are likely to be contaminated with decaying organic matter or minerals. Species at these sites usually segregate. For example, one area may contain only Orange Sulphurs, packed close to one another, with other species nearby but also in species-specific groups. Aggregations of this type are called puddle clubs. The condition of the butterflies, all immaculate without damage, indicates they are young adults, and all males. Females will also be found at moist ground, but singly. Butterflies of many species behave in this manner.

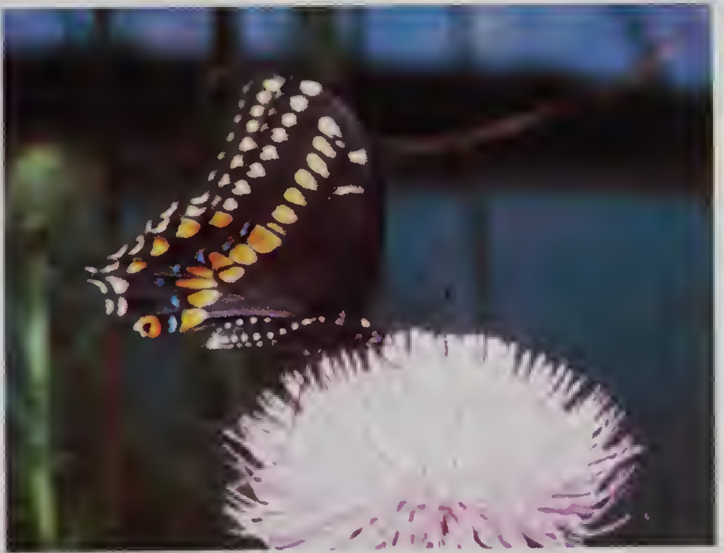

Cabbage White puddle club, Champaign County, IL.

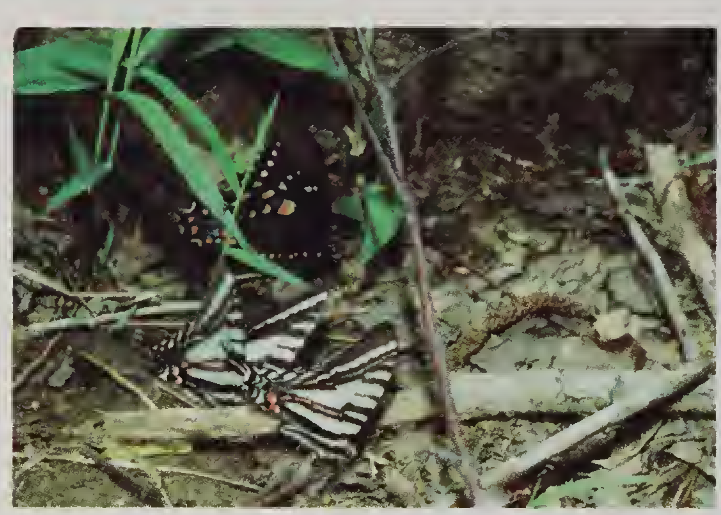

Road-killed snake attracting Red Admiral, American Painted Lady, Hackberry Butterfly, and many Gorgone Checkerspots, Mason County, IL.


Red-spotted Purples on raccoon dung, Piatt County, IL.

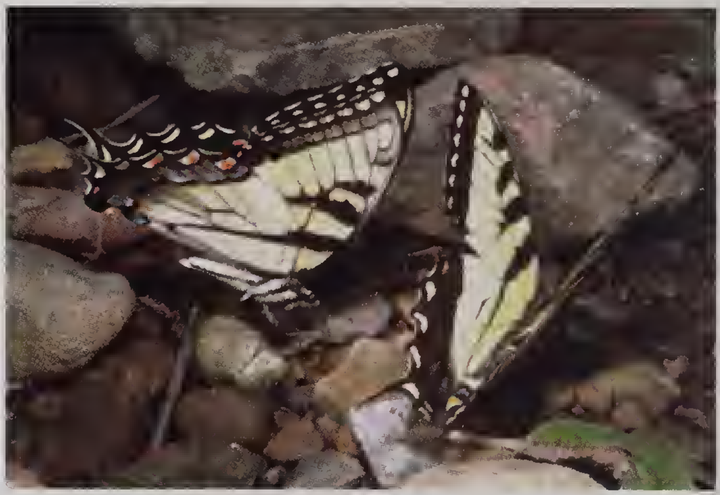

Animal waste attracting Variegated Fritillary and Pearl Crescents, Champaign County, IL.


Meadow Fritillary nectaring, Piatt County, IL.

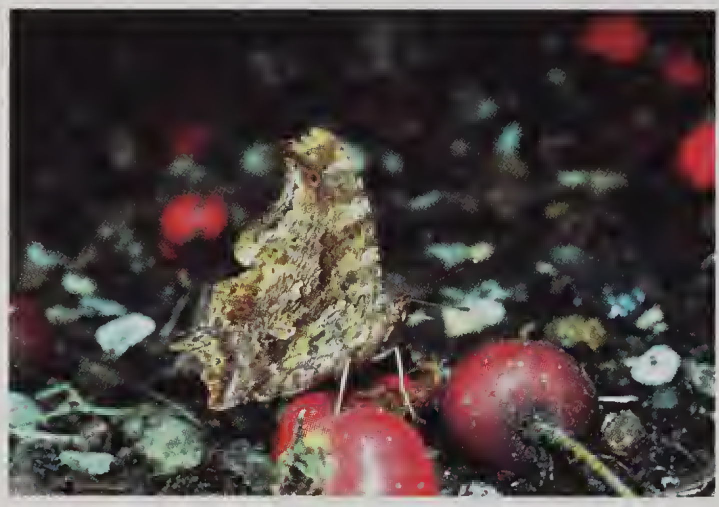

Black Swallowtail nectaring, Lee County, IL.



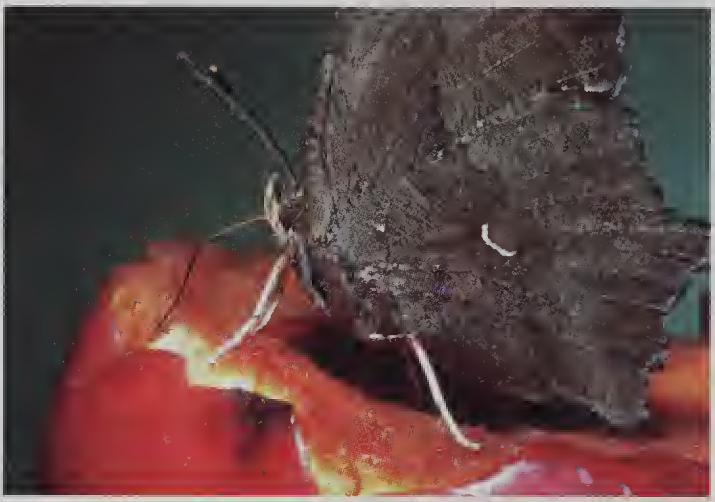
Zebra and Spicebush Swallowtails puddling, Pope County, IL.



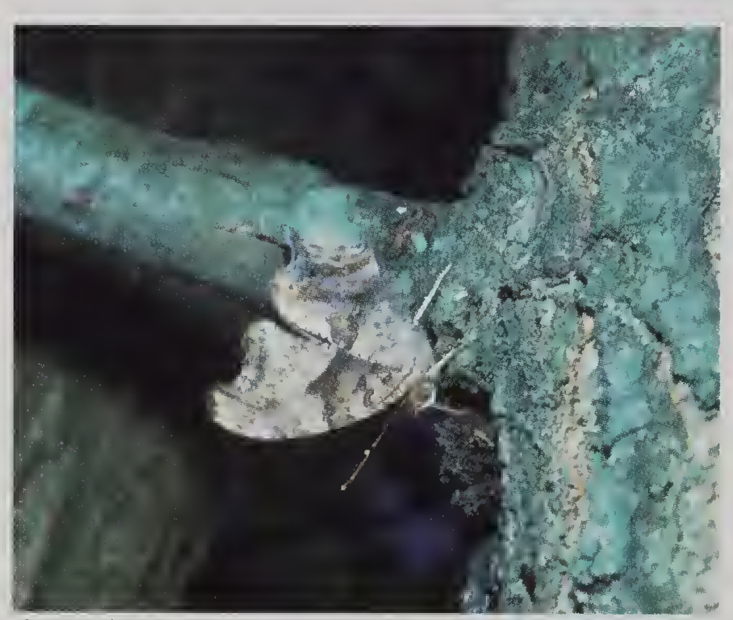
Tiger Swallowtails puddling, Pope County, IL.



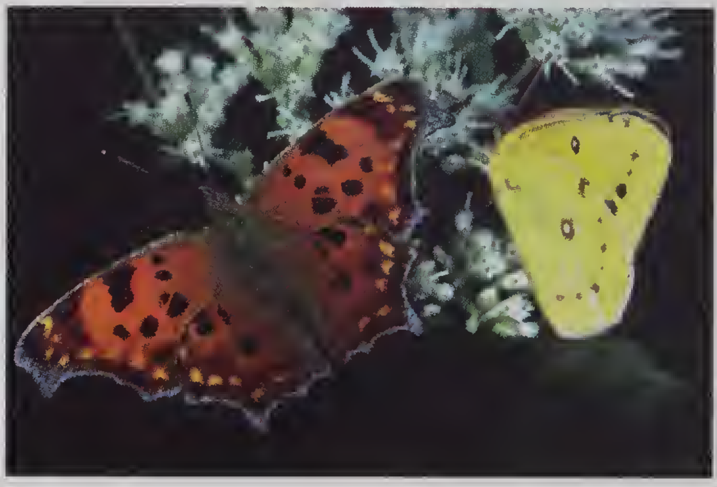
Comma on ripe thornapple, Piatt County, IL.



Comma on overripe apple, Champaign County, IL.



Question Mark at sap flow on oak, Lee County, IL.



Comma and Orange Sulphur nectaring, Vermilion County, IL.

Collecting and Studying Butterflies

Collecting can be a rewarding endeavor and is the best way to familiarize oneself with these insects. Such information is essential for a full understanding of butterflies (and other insects). We encourage, therefore, the responsible collection of butterflies by knowledgeable amateurs who can provide in this process information augmenting that obtained by professional entomologists, whose primary duties rarely extend to the noneconomic aspects of entomology.

Insects have great reproductive potential. As anyone knows who has tried to eliminate a pest species even within a relatively small area, normally we can only reduce populations but not eliminate them. Resurgence by the remaining few soon restores their numbers. Butterflies do not differ in this respect from other insects; thus, a modest level of collecting has no lasting impact on the population. There can be exceptions to this in those few instances where a species exists only in low numbers and only in very limited habitats. But for most species, collecting does no harm and is an important part of documenting the occurrence and distribution of species seasonally and over the years.

In all cases, the property rights of individual landowners and the rules and regulations of state, federal, and local governmental entities should be respected and observed. Permission to enter and collect should be obtained from individual landowners and any required permits must be obtained from public agencies.

The references listed in the "Additional Reading" section provide the information needed and give sources for the equipment and supplies required. The collector should take care to prepare labels with the necessary data for each specimen. If the collection is eventually deposited in a museum or other public institution, specimens lacking data will have no scientific value.

Butterflies can be studied by observing their behavior in nature. Much needs to be learned and careful observations are needed for many species on mating behavior and on feeding, seasonal occurrence, dispersal, and many other aspects of their existence. Some journals accept articles from amateurs for publication, and in fact encourage this.

Butterfly gardening, briefly described on the next page, will enable one to bring these insects close to home for study. Butterfly gardening and photography are beyond the scope of this field guide to cover in detail. Observing and studying can be greatly facilitated by using binoculars, so as not to disturb or change the normal behavior. Close-focus binoculars are essential for best results. See the "Additional Reading" section for further information. Excellent discussions on these subjects are to be found in the references listed.

Photographing Butterflies

Modern photographic equipment has made it relatively easy to obtain excellent up-close photographs of butterflies and other insects. With practice and patience, one can learn how to approach and successfully photograph the butterfly without capturing it. Not all specimens will permit close approach, but individuals of most species can be found that cooperate nicely. Take more than one picture to increase the chances for the best pose. Space limitations prevent our listing the equipment now available. We refer you to other works, listed in the references, that cover this topic. For those interested in this aspect of observing butterflies in nature, it can be a rewarding and valuable activity.

Butterfly Gardening

The enjoyment of the beauty of butterflies can be furthered by gardening to attract local butterflies. For those who live in highly urban locations, the number of species attracted will be relatively low, but even there some of our more spectacular butterflies may be seen. In suburban locations more variety can be expected. Richest of all are rural gardens, where even highly localized species may be found as visitors. In all cases, expect only species that occur in or fairly near the vicinity of the garden.

In principle, efforts should be directed in two ways. One is to attract the adults to flowers or other sources of adult food. The other is to grow plants that are the hosts for feeding caterpillars, and upon which adult females oviposit. The lists of suitable plants are long and have been published by many reliable authorities. We recommend that those interested refer to one or more of the volumes listed in the references for detailed information beyond the intended scope of this field guide.

Conservation

Widespread loss of butterfly habitats, especially in the more industrially developed nations, has led to greatly reduced populations of some species, and, in the most extreme cases, to extirpation. This has occasioned responses at local, state, and national levels. Some species have been placed on state and federal lists of threatened and endangered species. Local butterfly monitoring groups have been formed.

The conservation of individual species of butterflies is, of course, a matter of the conservation of habitat. Concern about dwindling butterfly populations has led to a ban of collecting in many parks, forest preserves, nature preserves, and state and national forests here and elsewhere. Actually, responsible collecting is unlikely to have any effect except in the case of the most highly localized populations. Overzealous management practices—forbidding collecting altogether and excessive burning of prairie habitat by site managers—may be deleterious. Butterfly enthusiasts should support conservation and restoration efforts by joining and participating in some of the many local, state, and national conservation organizations.

Butterfly or Moth?

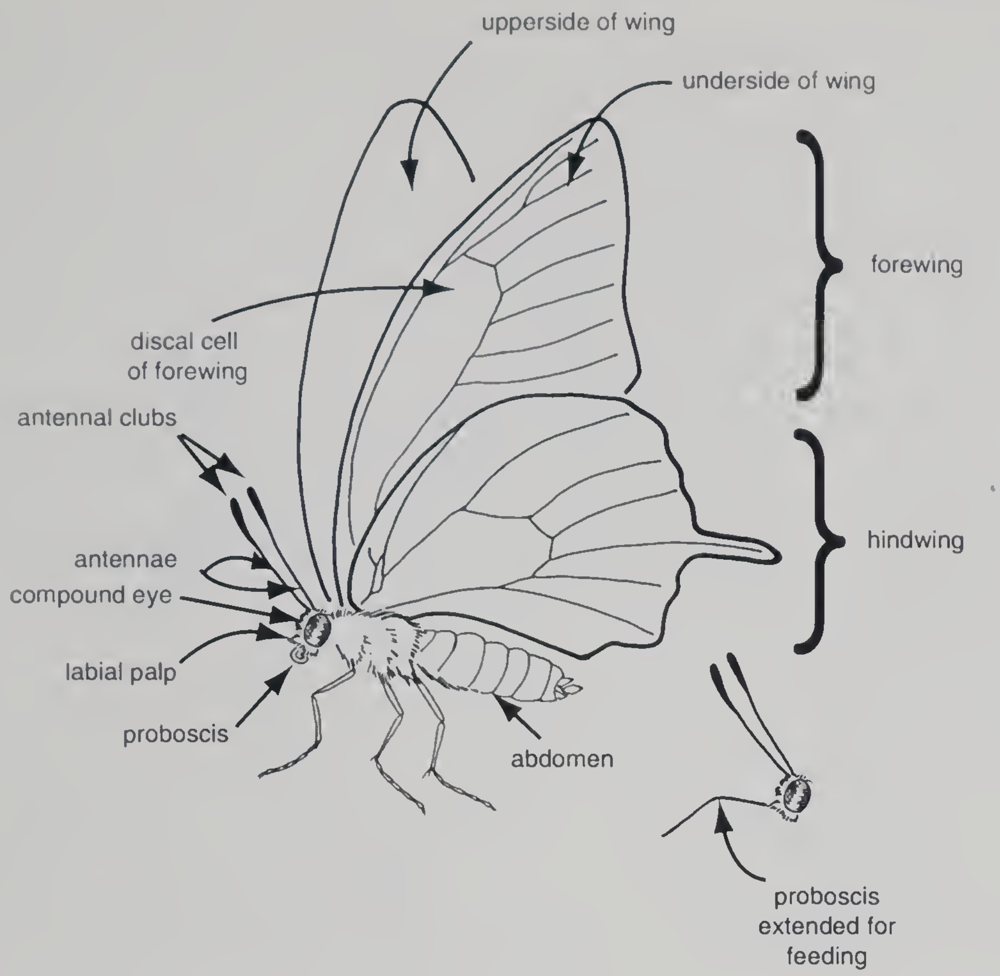
The order Lepidoptera is divided into at least 20 superfamilies. The exact number varies depending upon the opinion of different authorities. Of the total number, two superfamilies include the insects popularly known as butterflies. All the others include moths. The true butterflies are in the superfamily Papilionoidea. The skippers, also called butterflies, are in the superfamily Hesperioidea. This book treats only the true butterflies. An archaic classification dividing the order into two suborders, the Heterocera or moths, and the Rhopalocera or butterflies, is no longer used.

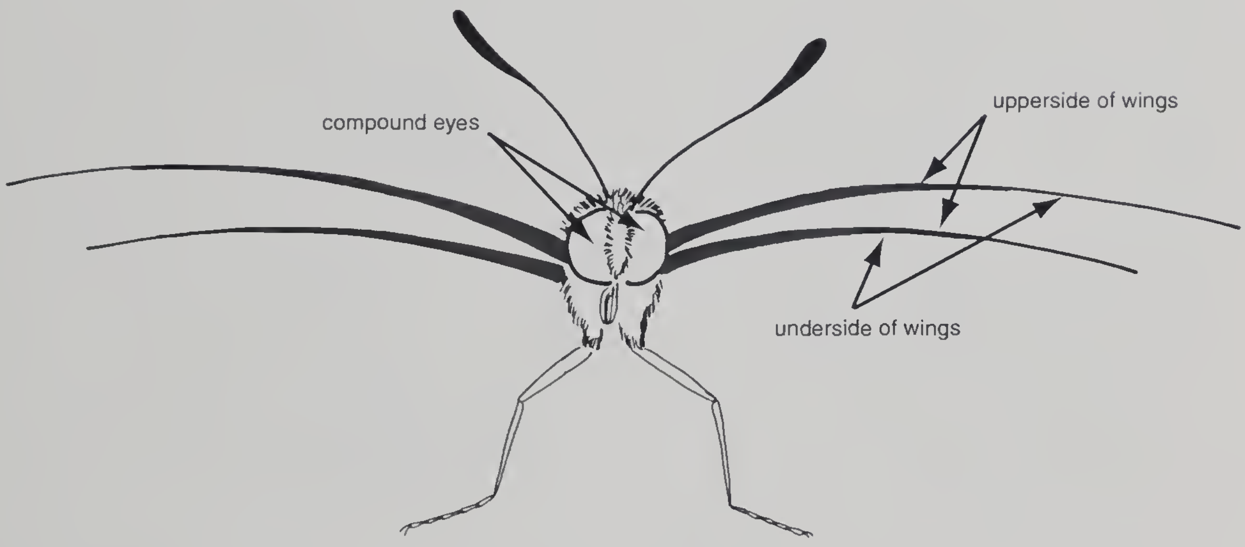
A question often asked is "How do you recognize a butterfly from a moth?" There is no single characteristic that will always separate the two. One feature that comes close concerns the antennae. Butterflies have clubbed antennae (see drawings on page 18). The true butterflies have the swollen tip (the club) rounded and terminal. The skippers have the club continuing as a short hook (apiculus). Moths rarely have clubbed antennae, although there are exceptions, mostly in the tropics. The antennae of moths are varied, often filiform (tapering to the end), pectinate and bipectinate (with branches), and other forms. The antennae of true butterflies (Papilionoidea) arise close together from the top of the head. The antennae of skippers (Hesperioidea) arise from widely separate locations on the top of the head.

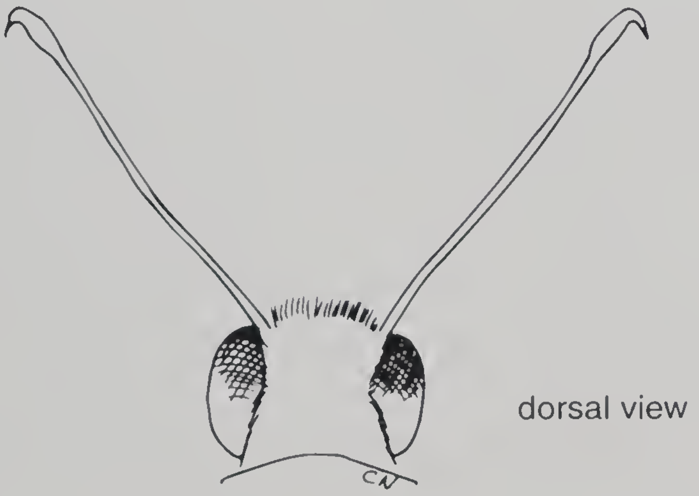
Characters that will help in further identifying butterflies include the position of the wings at rest, the relative size of the body versus the wings, and the setal (hair) covering of the body. Butterflies, in most cases, rest with the wings raised up and held together. Some exceptions rest with wings widespread. However, they are never flexed and positioned over the abdomen. The true butterflies do not have the structure of the wing base formed for flexing, as do most but not all moths. Moths for the most part have stouter bodies, with relatively smaller wings than do the true butterflies. In this respect, skippers are somewhat like moths.

Butterflies are primarily diurnal, with a few crepuscular. Most butterflies are active only on sunny days. Some sulphurs are so dependent on sunshine that they will settle in a bush or tree when a cloud obscures the sun. The majority of moths are nocturnal, but some are diurnal and sometimes mistaken for butterflies. The antennae identify them as moths, however. Moths are usually very hairy; butterflies have short setae and do not appear hairy.

Wing coupling in Lepidoptera is an essential component of flight. In most but not all moths, coupling is achieved by means of a frenulum (a bristle or bundle of bristles) on the hindwing that engages a retinaculum (clasp) on the forewing. If this feature is present the insect must be a moth. If it is absent the insect may or may not be a butterfly. Butterflies always lack a frenulum and


upperside of wing
underside of wing
forewing
discal cell of forewing
antennal clubs
hindwing
antennae
compound eye
labial palp
proboscis
abdomen
proboscis extended for feeding

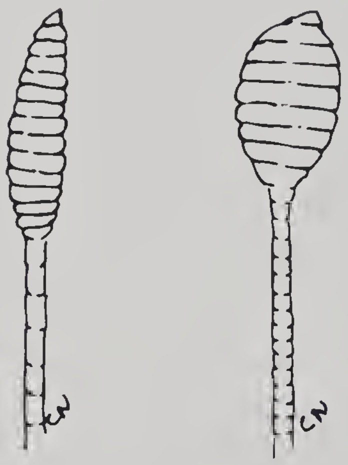

compound eyes
upperside of wings
underside of wings


dorsal view
CN

skipper head
antennae widely separated

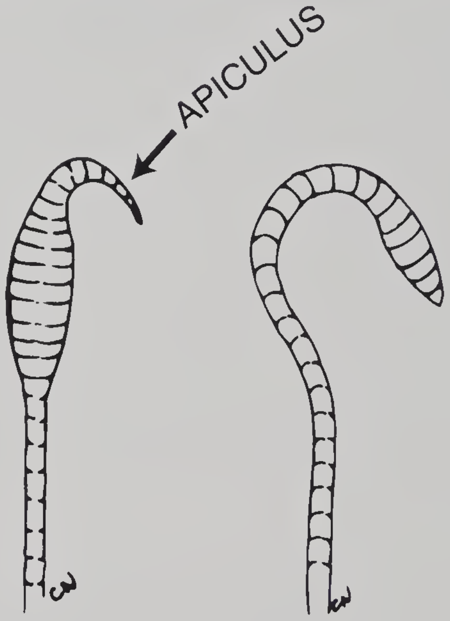
retinaculum, and instead have the humeral area at the base of the costal (anterior) region of the hindwing enlarged and held below the forewing (amplexiform coupling). This ensures that the fore and hindwing move in unison, an essential component of flight. A few moths, however, have the wing coupling mechanism similar to that of the butterflies. In summary no single character defines a butterfly. The clubbed antennae are the most obvious recognition character of butterflies, but even this feature has exceptions.

The ordinal name Lepidoptera means "scaly-winged." Modified setae (hairs) form flattened scales that cover the upper and undersides of the wings. The scales are attached in overlapping rows, much like the shingles on a roof. The colors of the wings are due to pigmented scales, and to scales whose structure results in iridescence.



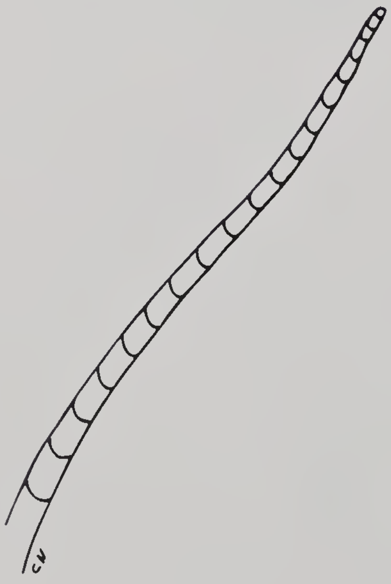
true butterflies
Papilionoidea

clubbed antennae

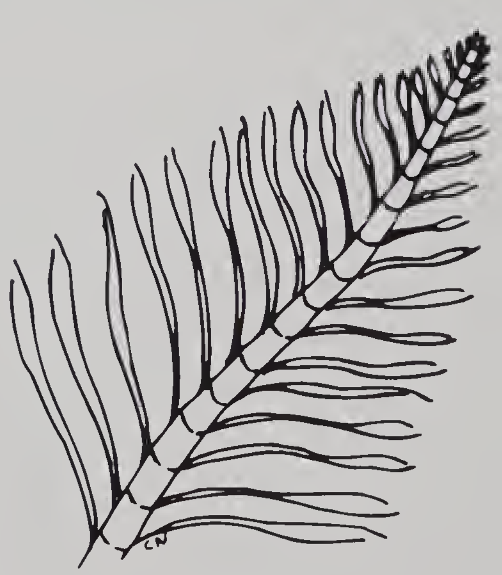


skippers
Hesperioidea

clubbed with a hooked tip

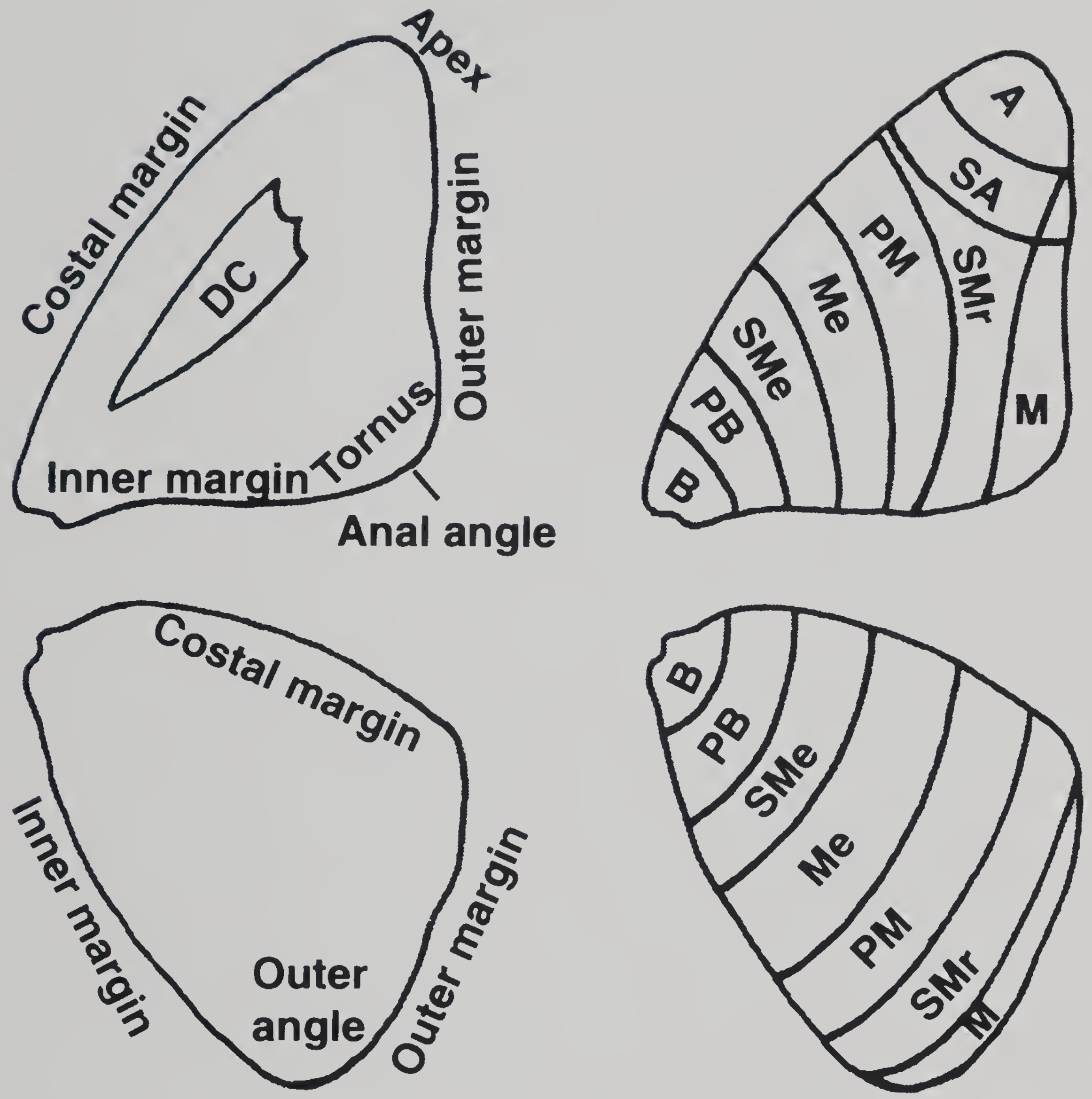


filiform
a moth



pectinate
a moth

Butterfly Wing Divisions

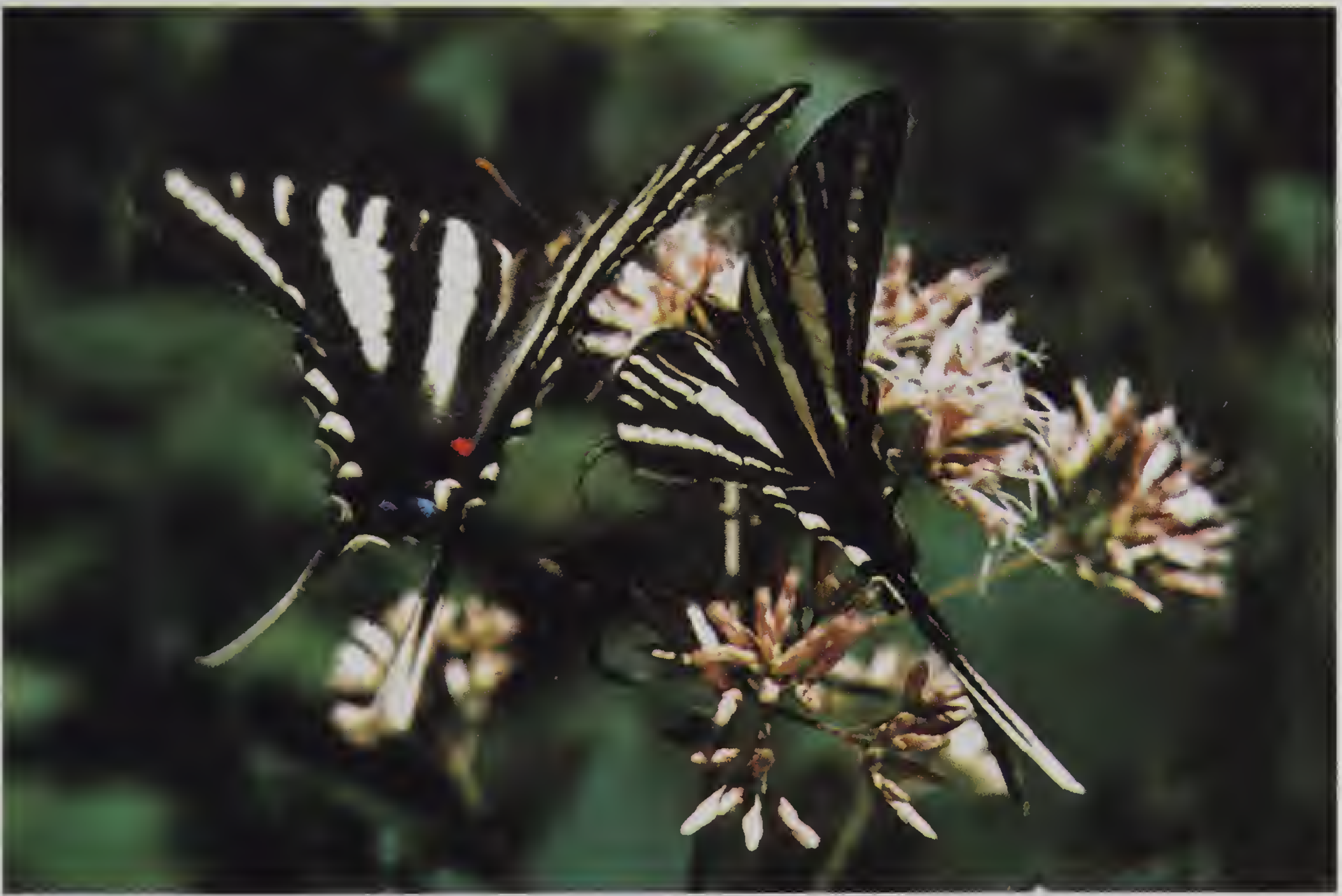

Apex
Costal margin
DC
Outer margin
Tornus
Inner margin
Anal angle
A
SA
PM
SMr
Me
SMe
PB
B
M
Costal margin
Inner margin
Outer angle
Outer margin
B
PB
SMe
Me
PM
SMr
M

B=basal, PB=postbasal, SMe=submedian, Me=median, PM=postmedian, SMr=submarginal, M=marginal, SA=subapical, A=apical, DC=discal cell or cell. Tip of wing is called apex.

Species Accounts

Family Papilionidae: Swallowtails

The swallowtails are large, usually showy insects, many with hindwing tails. Adults have all three pairs of legs formed for walking and perching. Eggs are usually laid singly on the larval host plants. Larvae feed on the leaves, often at night, and rest during the day. Some species hide within leaf shelters when not feeding, but others, which resemble bird droppings, rest in plain sight. All swallowtail larvae have on the prothorax an eversible gland, the osmeterium, which is everted when the larva is disturbed, releasing a foul odor. The species overwinter as pupae, attached by a silken girdle and button to a branch, twig, or other surface. Six species occur in Illinois, all tailed. They belong to three tribes of the subfamily Papilioninae. The Pipevine Swallowtail is an *Aristolochia* swallowtail of the tribe Troidini. The Zebra Swallowtail is a kite swallowtail of the tribe Leptocircini. The remaining four species are fluted swallowtails of the tribe Papilionini.



Zebra Swallowtails nectaring, Champaign County, IL.

Pipevine Swallowtail — Papilionidae, Troidini

Battus philenor (Linnaeus)

Description: Wingspan 3.75–4.5 in. Hindwings tailed. Black with blue-green iridescense on hindwing upperside, very strong in male, weak in female. Small white submarginal spots on both wings. Underside of hindwing with outer half brilliant iridescent blue, with a submarginal row of large round orange spots ringed with black.

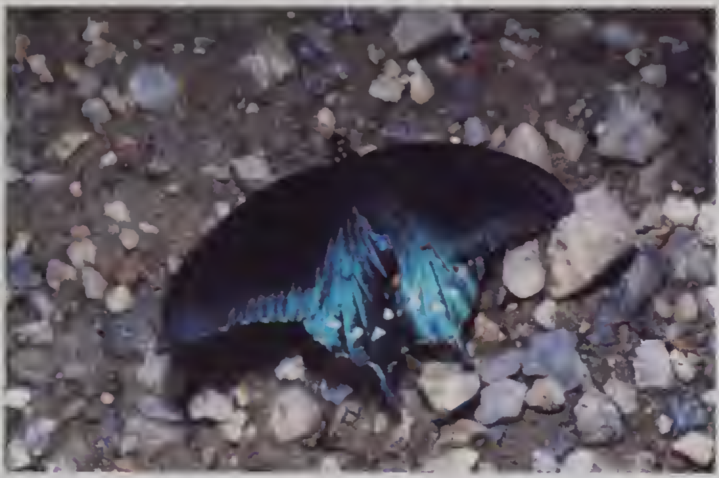
Similar Species: The Pipevine Swallowtail is the model for the mimetic females of the Spicebush, the Black, and the dark female Tiger Swallowtails and both sexes of the Red-spotted Purple. Details of the undersides of the hindwings differ for each species and serve to identify them. Female Black Swallowtails have a submarginal and complete median row of orange-red spots. Females of the Spicebush Swallowtails have the median row of orange-red spots interrupted by one blue spot. Black Tiger Swallowtails show the dark stripes typical of the species. The blue of the Pipevine Swallowtail is more iridescent than the blue of the mimics.

Habitat: Fields, gardens, meadows, and trails in or near forests where the larval hosts are found. Often seen at damp sites along streams.

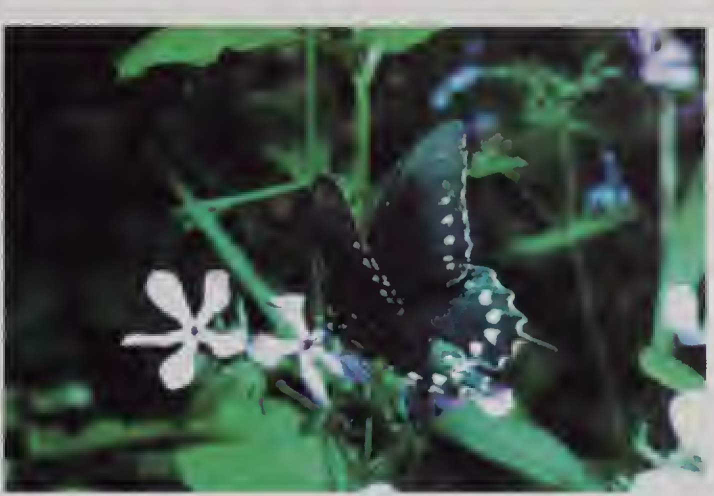
Natural History: Overwinters as a pupa. Spring generation individuals are smaller than summer individuals. Flight continues into October. Adults are avid feeders at flowers, such as clovers, bee balm, milkweeds, thistles, and many others. Adult males are frequent visitors to wet ground along margins of streams. Males patrol in search of females. Eggs are laid singly or in numbers on species of *Aristolochia*. In Illinois *A. serpentaria* (Virginia snakeroot) and *A. tomentosa* (woolly pipevine) as well as cultivated *A. durior* (Dutchman's pipe) are used. Reports of larvae feeding on *Asarum* (wild ginger) and *Polygonum* spp. (knotweed) are certainly incorrect. Captive larvae will starve to death rather than eat wild ginger. Larvae are dark brown, or sometimes light orange-brown, and have a lateral row of fleshy tubercles along each side. Larvae sequester the toxic aristolochic acid of the plant host, passing it on through to the adult stage. The adults thus are very unpalatable and toxic to predators.

Status: Permanent breeding resident. Nearly statewide. Most common in the southern part of the state. Can be locally common where the larval food plants are abundant. Scarce to absent in the northern counties.

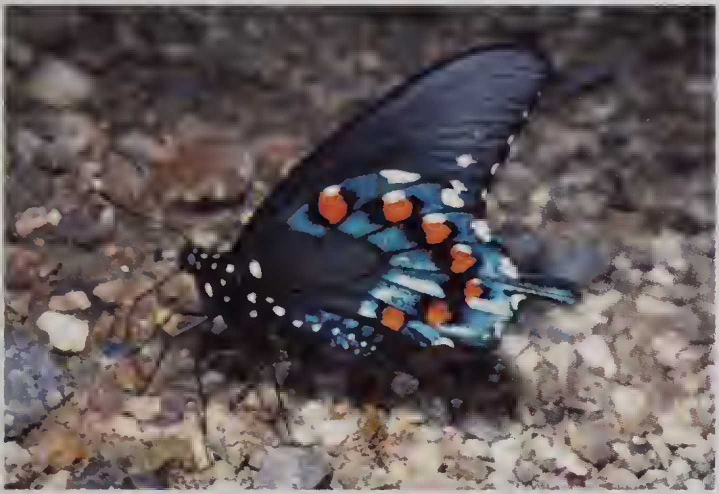
Remarks: The Pipevine Swallowtail is the only northern representative of the Neotropical genus *Battus*.



Male, Pipevine Swallowtail, Wayne County, MO.

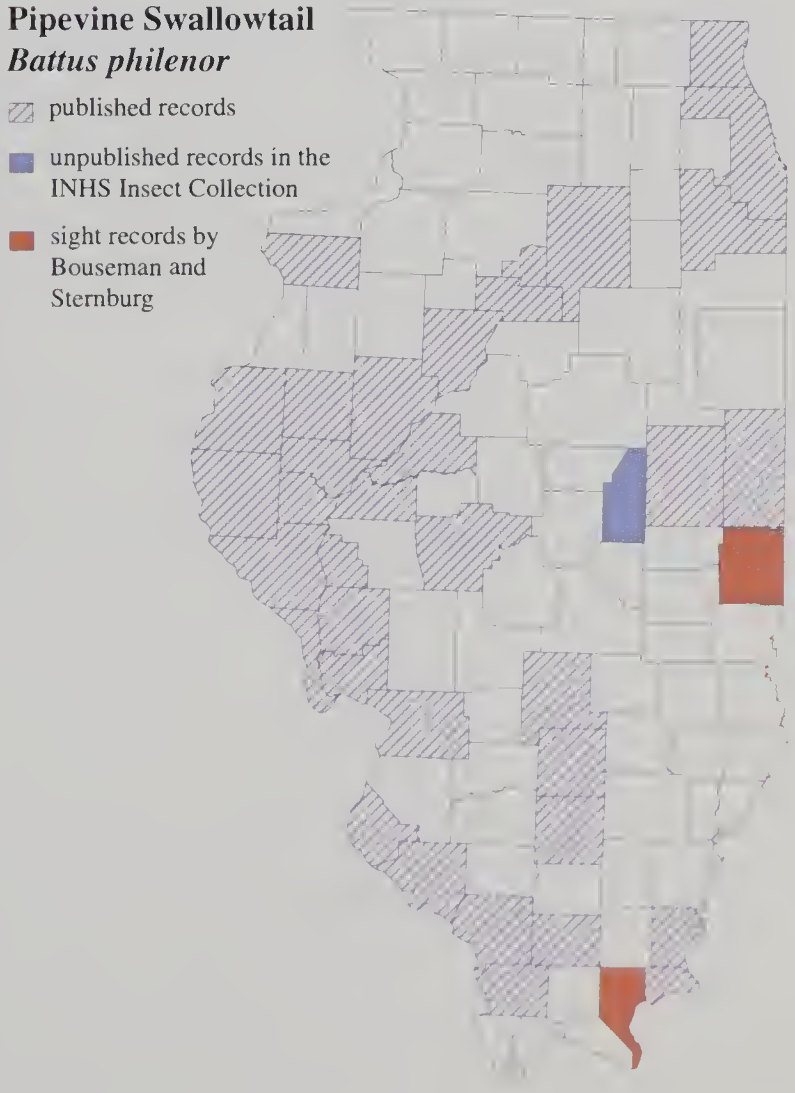


Female, Pipevine Swallowtail, Pope County, IL.



Male, Pipevine Swallowtail, Wayne County, MO.

Male, Pipevine Swallowtail in flight, Pope County, IL.



Pipevine Swallowtail
Battus philenor

▨ published records

🟦 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg

Black Swallowtail Papilionidae, Papilionini

Papilio polyxenes asterius Stoll

Description: Wingspan 3.0–4.0 in. Upperside black with submarginal yellow spots, males with prominent central band of yellow, females with central band reduced or nearly absent. Undersides of both sexes similar with orange-red and yellow markings. Hindwings have uppersides with blue scaling along rear submarginal area, heavy in females, reduced in males. Hindwings with black tails. Females are mimics of *Battus philenor.*

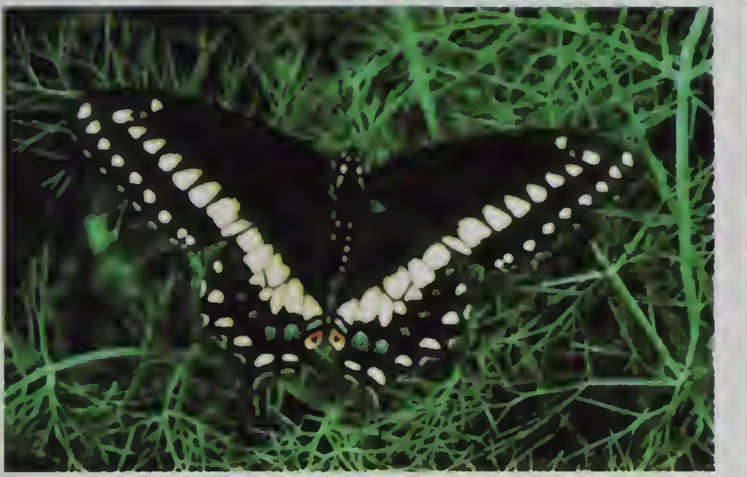
Similar Species: Males are distinctive, but females resemble *Battus philenor* and females of *Papilio troilus.* Details of markings distinguish each species. See illustrations.

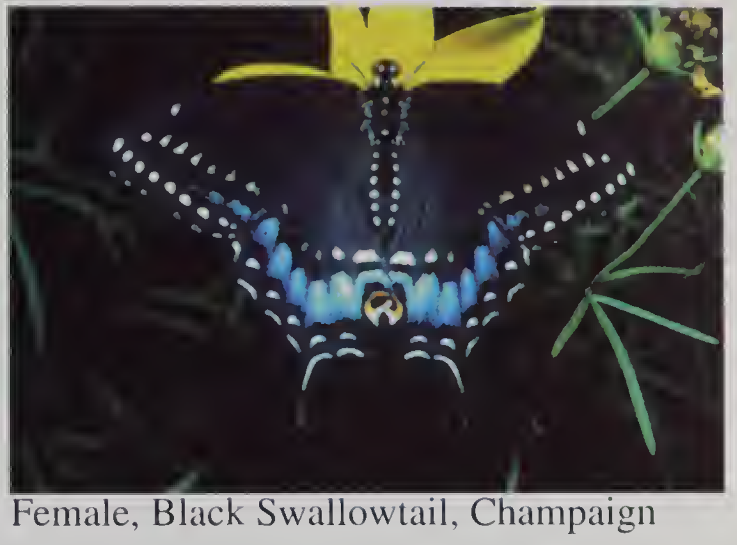
Habitat: Open areas, meadows, parks, along roadsides, streams. Rarely seen within forested areas. Suburban and even urban.

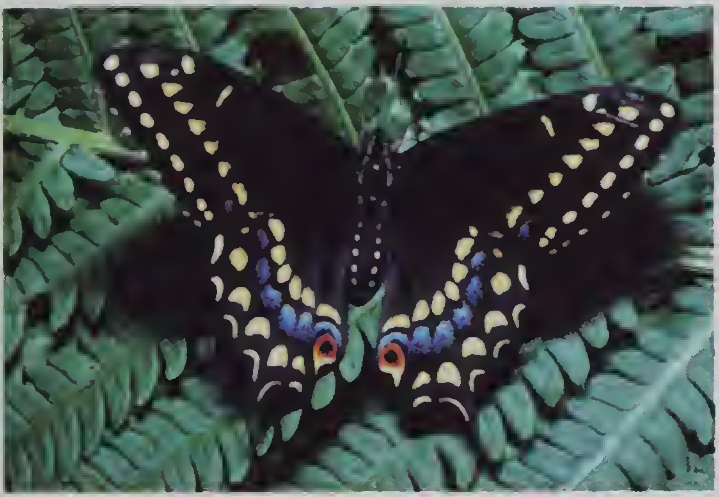
Natural History: Two to three generations per year, specimens of the first are smallest, appearing in April and May. Generally present all summer. Males select high spots over vegetation where they patrol and wait for females to fly by, a strategy known as "hill-topping." Mated females search for and oviposit on plants in the carrot family (Apiaceae), favorite hosts being dill, parsley, carrot, parsnip, and various native members of the family. Larvae live on the foliage. The later instars have circular alternating yellow, green, and black bands. The early instars resemble bird droppings. Pupation is on or near the larval food plant. Overwintering pupae are brown, cryptic. Some pupae that do not overwinter are green. Adults nectar at a variety of flowers, commonly on composites and milkweeds.

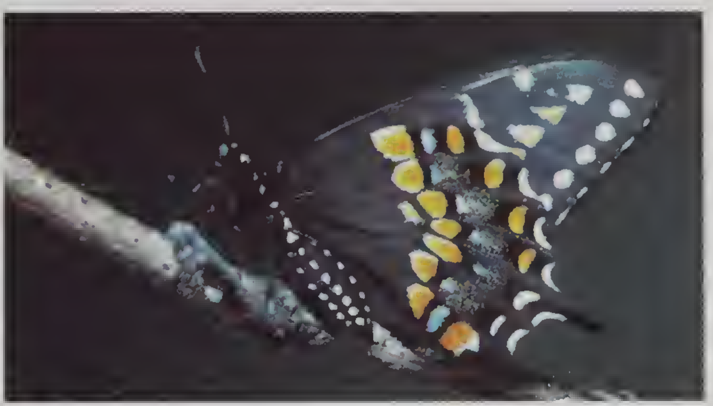
Status: Common statewide breeding resident.

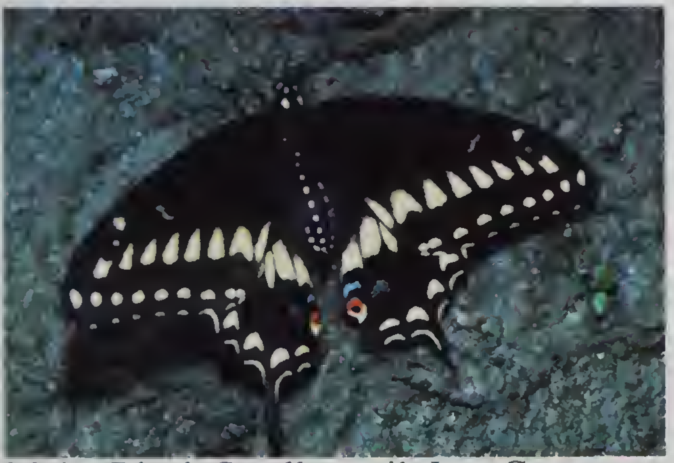
Note: Where carrots, parsley, and dill are grown, the larvae can cause economic damage.

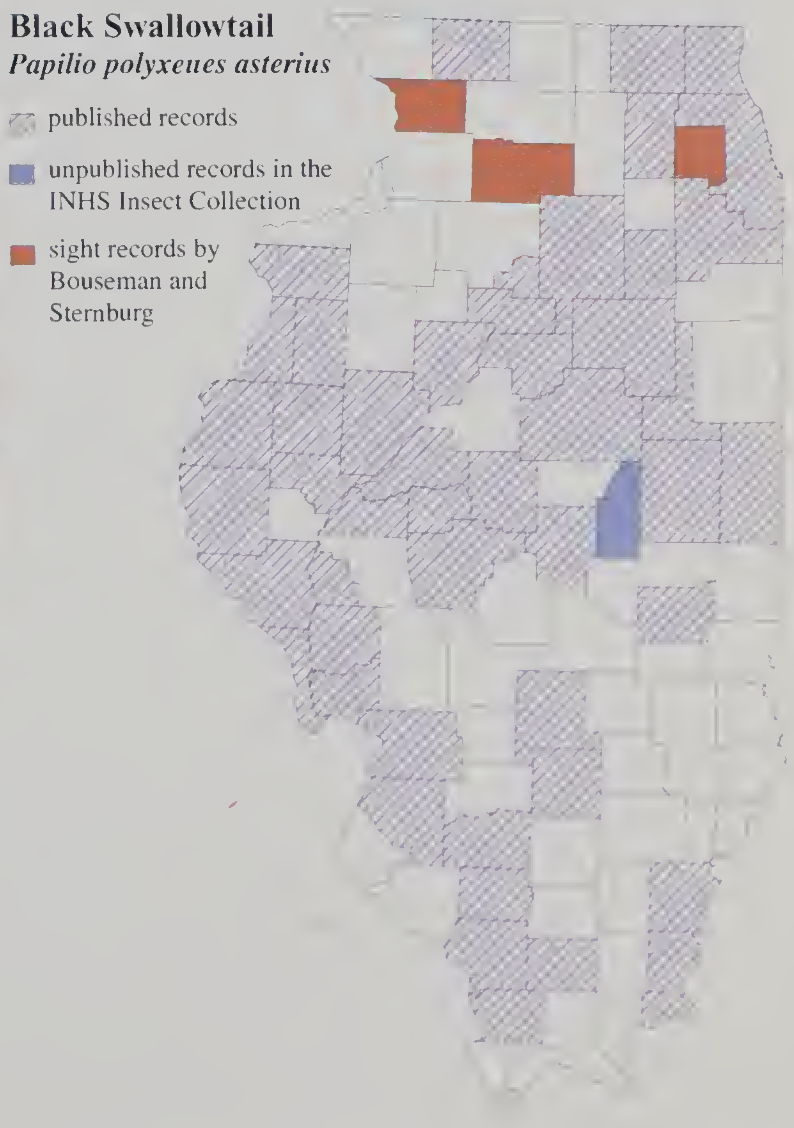

Male, Black Swallowtail, Champaign County, IL.


Female, Black Swallowtail, Champaign County, IL.


Female, Black Swallowtail, Champaign County, IL.


Underside, Black Swallowtail, Champaign County, IL.


Male, Black Swallowtail, Lee County, IL.


Black Swallowtail
Papilio polyxenes asterius

▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Ozark Swallowtail Papilionidae, Papilionini
Papilio joanae J.R. Heitzman

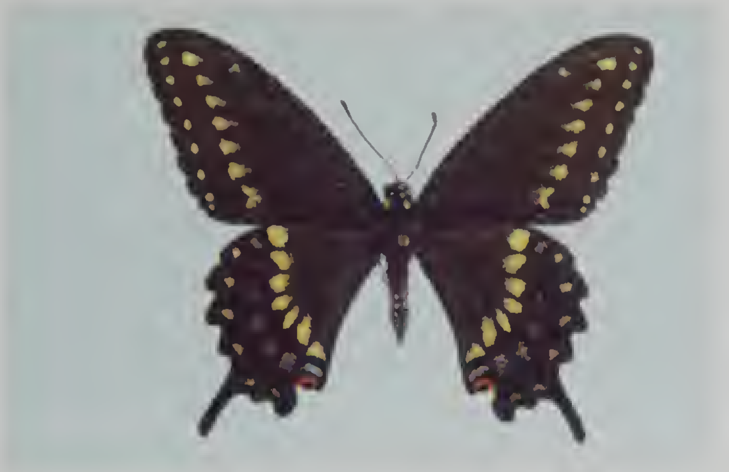
Description: Very closely resembles the Black Swallowtail. Dimorphic, the females darker than the males, with the postmedian row of yellow spots greatly reduced or absent. In both sexes, this row on the underside consists of orange-red spots, much smaller than those of the Black Swallowtail and more orange. The most anterior spot of the postmedian row tends to be single or nearly so, instead of doubled. In *joanae* the black spot in the orange tailspot touches the posterior border, instead of being centered.

Habitat: Cedar glades and woodlands of the Missouri Ozarks in scattered populations. Not known from Illinois, but included here for reference because suitable habitat occurs on the Illinois side of the Mississippi River across from the Missouri Ozarks.

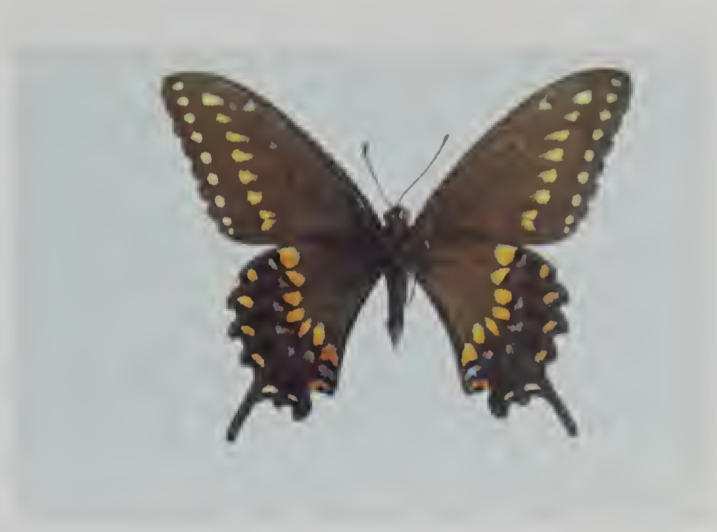
Natural History: Larval food plants are native members of the carrot family Apiaceae, including meadow parsnip (*Thaspium barbinode*), yellow pimpernel (*Taenidia integerrima*), and golden Alexander (*Zizia aurea*). The larvae can be reared on other members of the family, including non-native species such as wild parsnip. While waiting for females, males perch on shrubs and trees. Adults take nectar from woodland plants including rose verbena, wood betony, puccoon, and others. There are two generations per year.

Status: Not recorded from Illinois. The species is known from the Missouri Ozarks region, from adjacent Arkansas, and from western Kentucky. It should be sought in suitable habitat in southern Illinois.

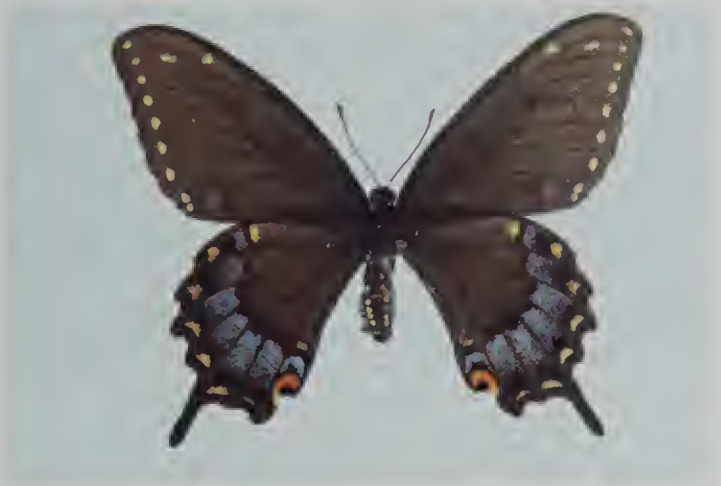
Remarks: Mitochondrial DNA analysis has shown *P. joanae* to be closely related to *P. bardii* of the western U.S. and not to *P. polyxenes*.



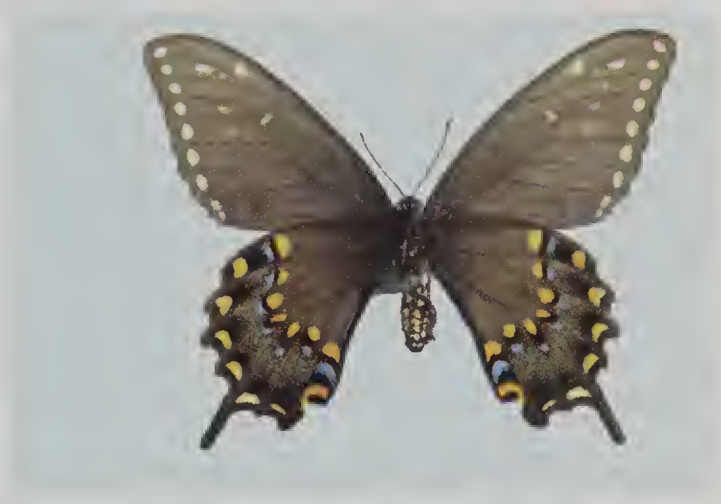
Male, upperside, Ozark Swallowtail, Benton County, MO.



Male, underside, Ozark Swallowtail, Benton County, MO.



Female, upperside, Ozark Swallowtail, Benton County, MO.



Female, underside, Ozark Swallowtail, Benton County, MO.

Giant Swallowtail Papilionidae, Papilionini

Papilio (Heraclides) cresphontes Cramer

Description: Wingspan 4–6 inches (the largest Illinois butterfly). Spring individuals average smaller than those of summer. Sexes similar. Upper surface brown with diagonal line of yellow spots from apex of forewing to base of hindwing. Underside mostly yellow, spot pattern of upperside repeated and enlarged. Tail of hindwing spatulate with yellow center.

Similar Species: None in Illinois.

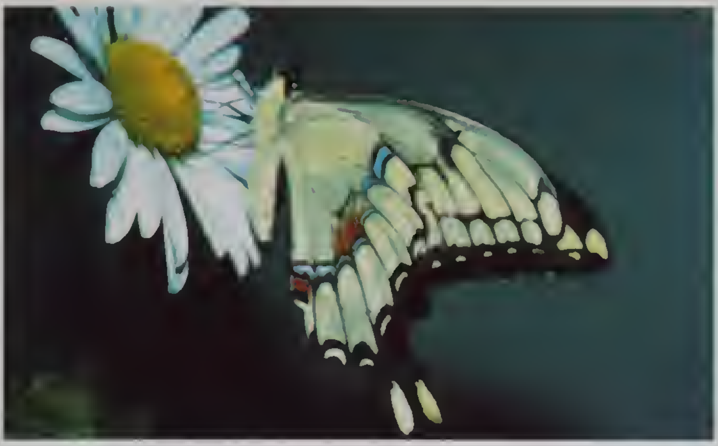
Habitat: Woods where larval hosts grow and adjacent areas. May wander over open areas.

Natural History: Two generations per year. Overwinters as a chrysalis (pupa). First generation adults emerge in May and June, second generation in August. Males patrol in search of females. Females lay eggs singly on wafer ash (*Ptelea trifoliata*) and prickly ash (*Zanthoxylum americanum)* (both Rutaceae). Larvae pass through five instars, all resembling bird droppings. Larvae feed at night; small larvae rest on the upper surfaces of leaves, larger larvae rest on twig stems. Pupae resemble dead leaves and may or may not be on the larval host plant. Adults visit a variety of flowers for nectar. Milkweed and many composites are favored. Clover and phlox are also visited. Adults, especially males, seek moisture and minerals at damp ground sites.

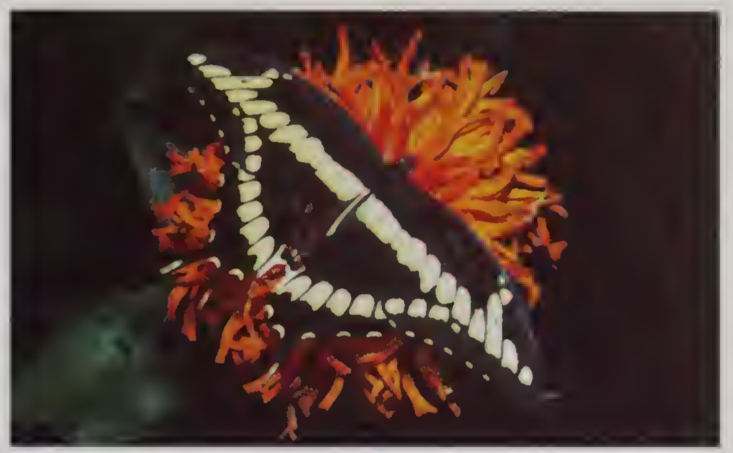
Status: Breeding resident, probably statewide but sporadic. May be common in some localities. Adults visit flowers along roadsides, edges of wooded areas, open fields, and urban gardens.

Note: The Giant Swallowtail is our only representative of a mostly tropical group of swallowtail butterflies (*Heraclides*). Its range extends from Ontario south through Central and into South America. Where citrus is grown, the larvae are called “orange-dogs," and are a minor pest.

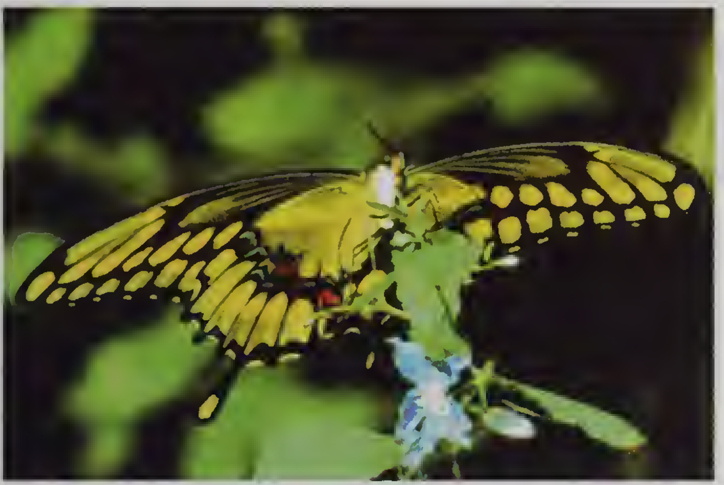
Remarks: The generic name *Heraclides* is often used.



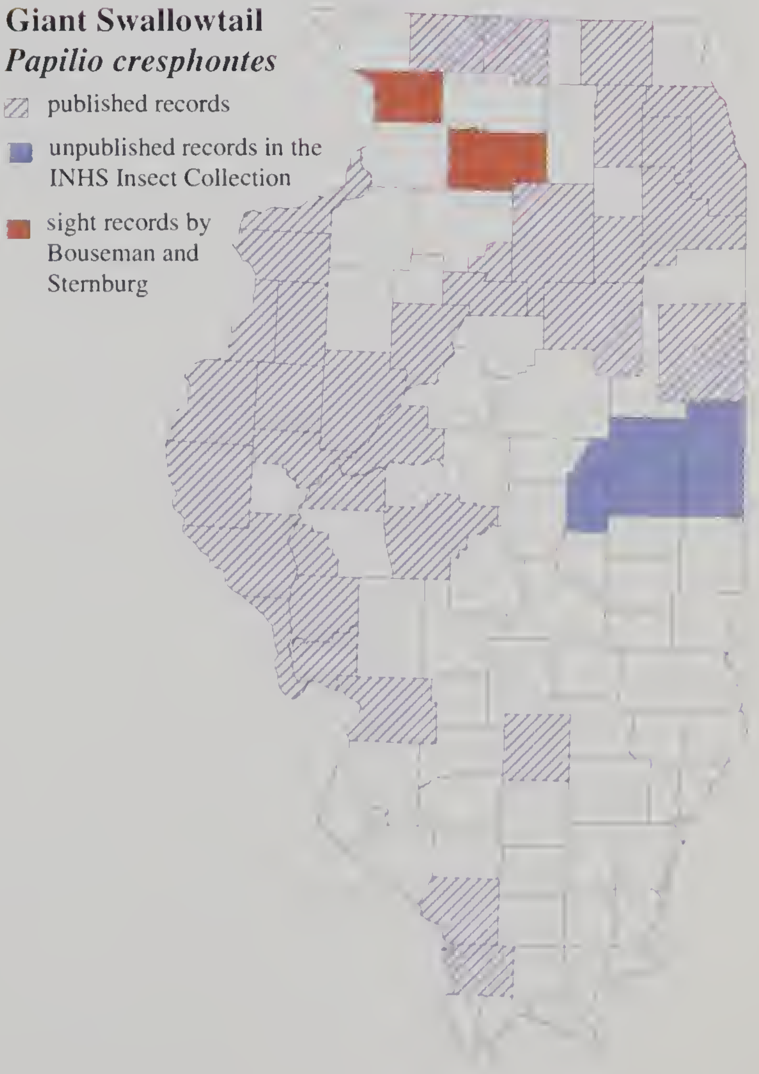
Female, Giant Swallowtail, Champaign County, IL.



Male, Giant Swallowtail, Champaign County, IL.



Giant Swallowtail, ventral view of backlighted specimen showing dorsal markings, Piatt County, IL.



Giant Swallowtail
Papilio cresphontes

▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Tiger Swallowtail — Papilionidae, Papilionini

Papilio (*Pterourus*) *glaucus* Linnaeus

Description: Wingspan 3.5–5 in. Hindwings tailed. Males yellow with black stripes and border. Some blue scaling on hindwing. Females dimorphic. One form is yellow and striped like the males, but with extensive blue scaling on posterior hindwings. The other form has the yellow areas replaced by black; on the underside the striped pattern appears as black stripes on a slightly lighter black background. Upperside of dark female has extensive blue scaling on hindwings.

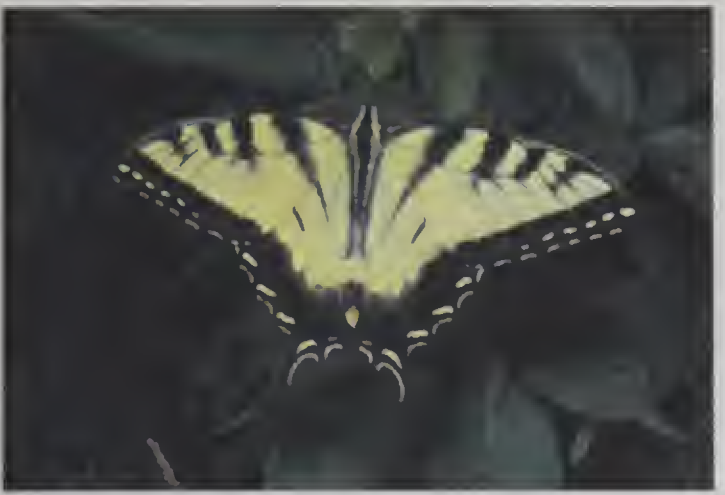
Similar Species: Yellow forms are distinctive, cannot be confused in Illinois. Dark females are mimics of the Pipevine Swallowtail, but tiger pattern is still evident. Female Black Swallowtails lack stripes. Pipevine Swallowtails lack stripes and are much more iridescent.

Habitat: Primarily a forest insect. Wooded areas, urban and suburban areas, parks, river courses. Wanders widely into open areas.

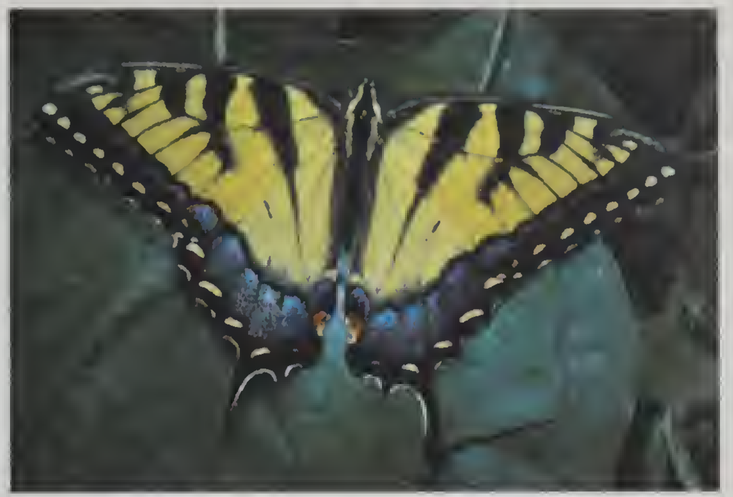
Natural History: Two generations per year. Spring specimens smaller than summer specimens. Our most arboreal swallowtail. Males patrol through the tree tops in search of females. Both sexes nectar on a great variety of plants. Males often take moisture at puddles. Other food sources include carrion and animal dung. Larval hosts include wild black cherry (*Prunus serotina*), tulip poplar (*Liriodendron tulipifera*); also apple, poplar, maple, ash, and others. Five larval instars; one and two are black with white saddle (bird-dropping resemblance), three is green with white saddle, four and five green with metathoracic eye spots. Pupae cryptic like bark, on or near larval host.

Status: Breeding resident. Often common. Statewide.

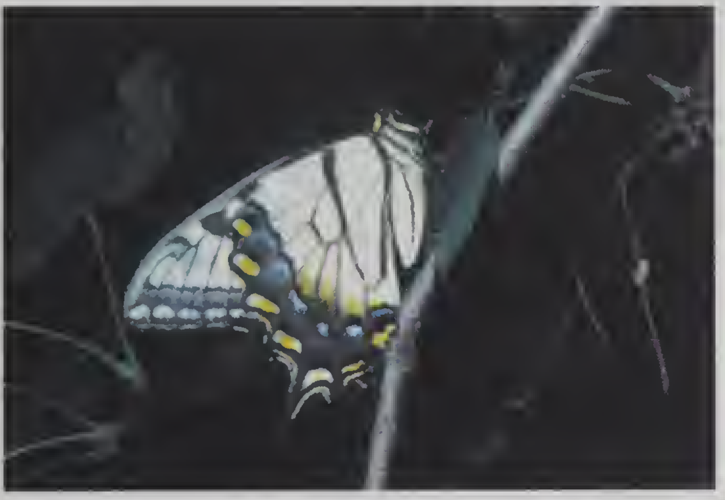
Remarks: The generic name *Pterourus* is used by many authorities.



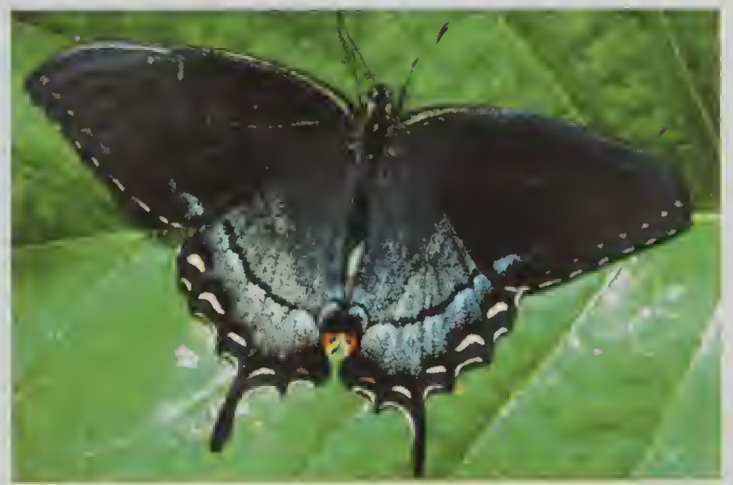
Male, Tiger Swallowtail, Lee County, IL.



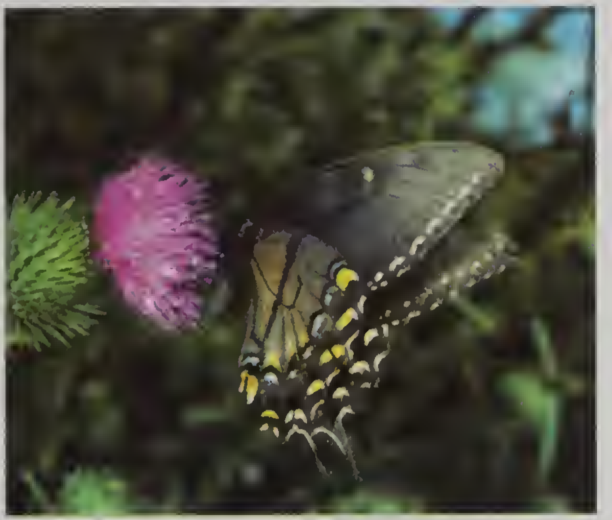
Female, Tiger Swallowtail, yellow form, Champaign County, IL.



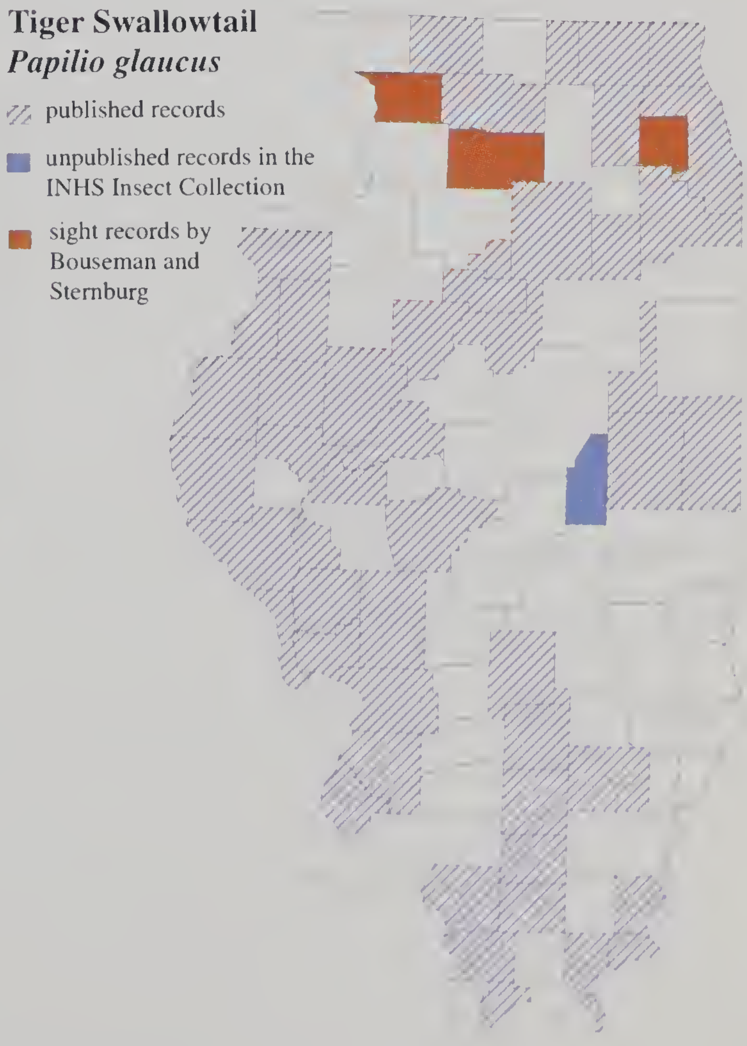
Male, Tiger Swallowtail, Champaign County, IL.



Female, Tiger Swallowtail, black form, Champaign County, IL.



Female, Tiger Swallowtail, black form, Champaign County, IL.



Tiger Swallowtail
Papilio glaucus

▨ published records
🟦 unpublished records in the INHS Insect Collection
🟧 sight records by Bouseman and Sternburg

Spicebush Swallowtail — Papilionidae, Papilionini

Papilio (*Pterourus*) *troilus* Linnaeus

Description: Wingspan 3.75–4.25 in. Spring specimens smaller than summer ones. Sexes similar, differing in color of upper hindwings. Upperside black, with submarginal row of yellow spots on forewings, green clouded hindwings. Hindwing of spring specimens with prominent orange-red spot on front margin, summer specimens have this spot reduced and greenish white. Males have distal area of hindwing greenish, females blue. Underside of both sexes similar. The hindwing has marginal and postmedian rows of orange spots. The postmedian row of orange spots is interrupted midway with a blue spot.

Similar Species: Females mimic Pipevine Swallowtails as do females of the Black Swallowtail, and dark forms of female Tiger Swallowtails. The interrupted postmedian row of orange spots on the hindwing underside is diagnostic for Spicebush Swallowtails.

Habitat: A forest species, found where sassafras and/or spicebush occur. Often found in open areas near woods. Open woods, parks, urban areas.

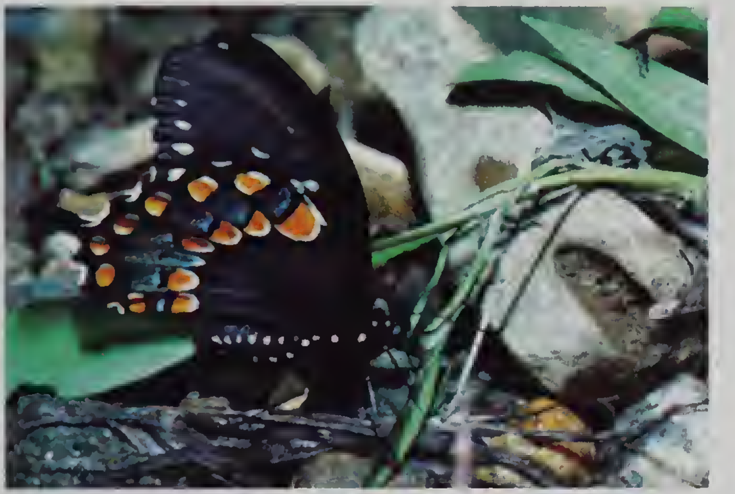
Natural History: Two or three generations per year. Overwintering stage pupae, on or near larval host. Principal larval hosts are sassafras (*Sassafras albidum*) and spicebush (*Lindera benzoin*). Five instars, the first two resembling bird droppings and when not feeding hidden in a folded leaf section. Third instar greenish, intermediate with second and fourth instars; the fourth and fifth are green with very large false eye spots on the metathorax, and found when at rest in a rolled leaf with only the anterior body visible. Resembles the head of the arboreal rough green snake. Adults nectar on a large variety of flowers; phlox and milkweeds are often favored. Males frequently "puddle." Males patrol in search of females.

Status: Breeding resident. Nearly statewide, absent in northwestern sector. Two generations north, perhaps three south. Common, often the most common swallowtail in forested areas.

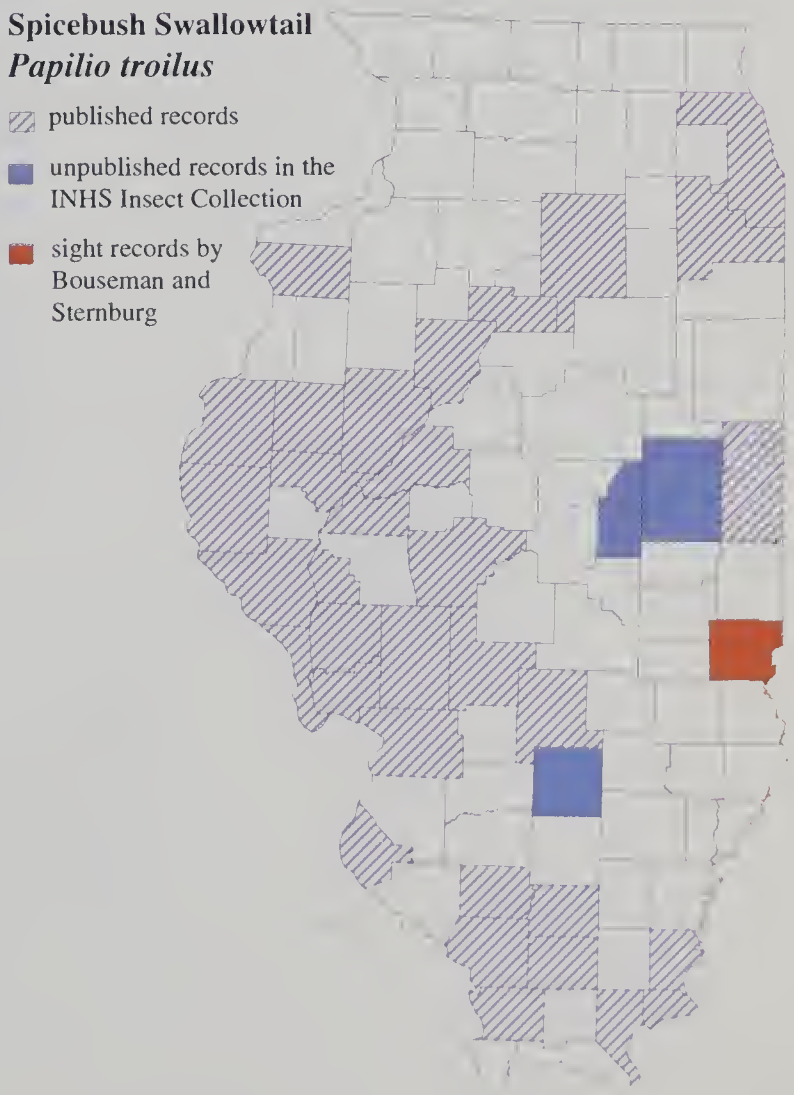
Remarks: The generic name *Pterourus* is often used.

Male, Spicebush Swallowtails, Pope County, IL.

Female, Spicebush Swallowtail, Champaign County, IL.



Male, Spicebush Swallowtail, Pope County, IL.



Spicebush Swallowtail
Papilio troilus

▨ published records

🟦 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg

Zebra Swallowtail — Papilionidae, Leptocircini

Eurytides marcellus (Cramer)

Description: Wingspan 3.0–4.0 in. Seasonally polymorphic. Alternating black and pale green to white stripes. Long to very long tails on hindwings. Tails swordlike, black with white tips (early spring) or white edges (late spring and summer). Underside of hindwing with red stripe bordered on both sides with black. Red spots at rear angle of hindwings, most extensive on spring individuals. Early spring specimens are small and lighter, black stripes reduced, tails short and white-tipped. Later spring specimens larger, intermediate between early spring and summer specimens. Both spring forms are from overwintered pupae. Summer generation individuals are the largest and darkest and have reduced red spots, but the longest tails, black edged in white.

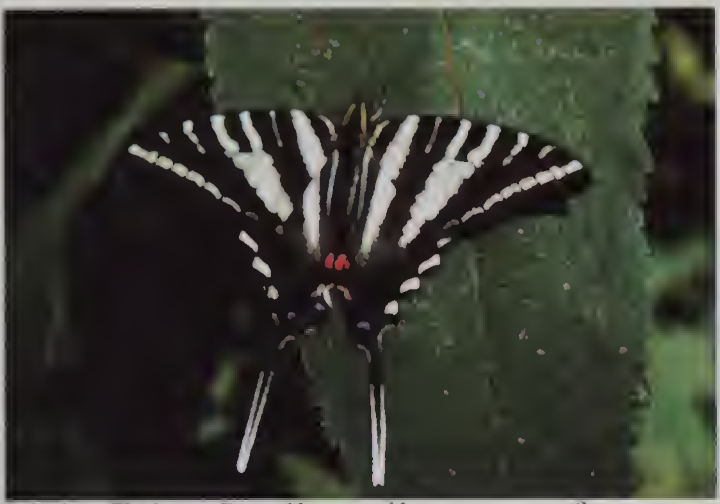
Similar Species: None in Illinois.

Habitat: Forested areas where the larval host pawpaw (*Asimina triloba)* grows. Often wanders to adjacent open areas to nectar.

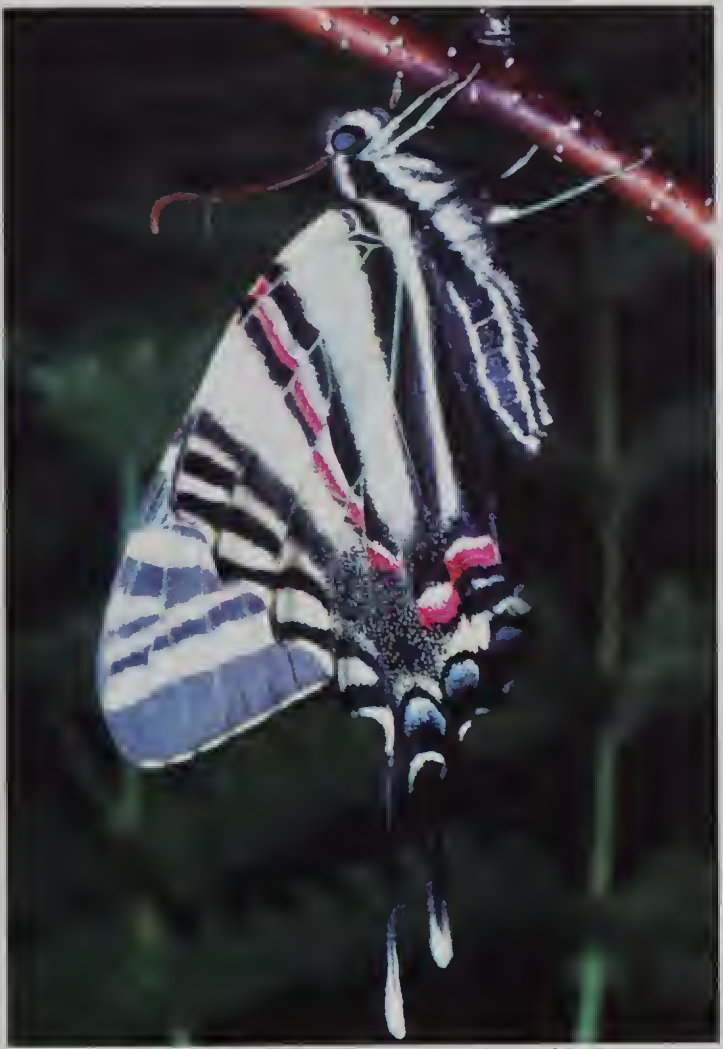
Natural History: Two generations northward, partial third south. Because the first generation adults emerge over a long period, the summer generation also has a long flight season. The species overwinters in the pupal stage. Five larval instars, all of them green with narrow circular black bands, the metathoracic band the largest. Larvae somewhat sluglike. Look for them on the undersides of leaves of young pawpaw plants where feeding damage is seen. Adults nectar on a wide variety of flowering plants, including clovers. Males frequently puddle in groups.

Status: Breeding resident where pawpaw grows. Most common in southern Illinois, but sometimes common farther north to central Illinois.

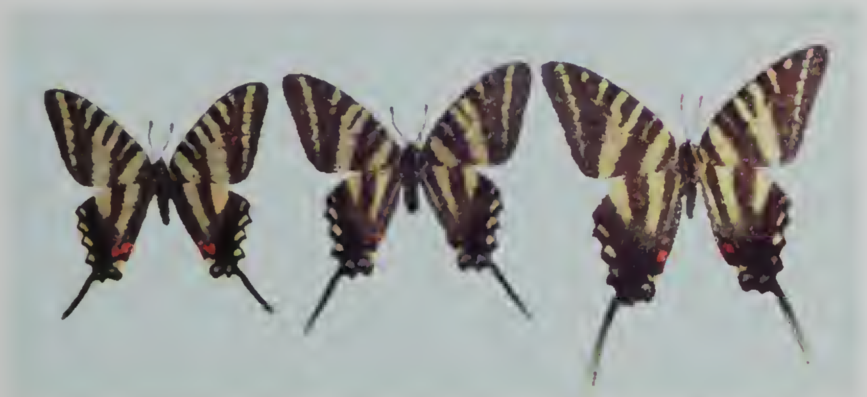
Note: The Zebra Swallowtail is our only representative of a large group of tropical "kite" swallowtails of the Tribe Leptocercini.



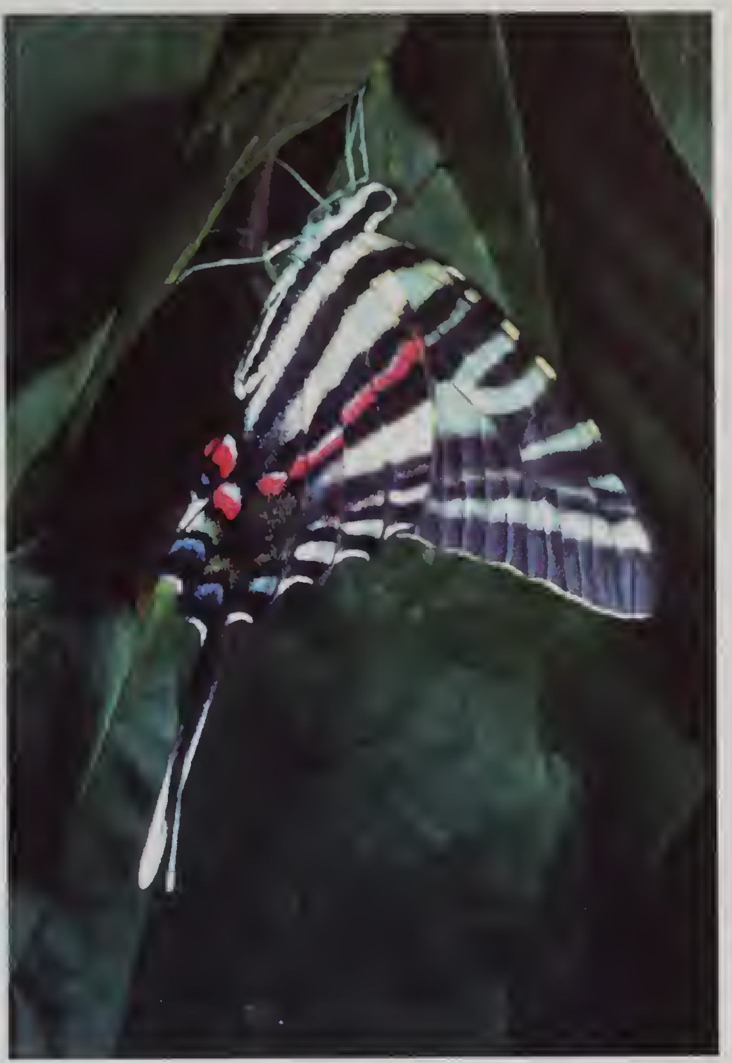
Male, Zebra Swallowtail, summer form, Champaign County, IL.



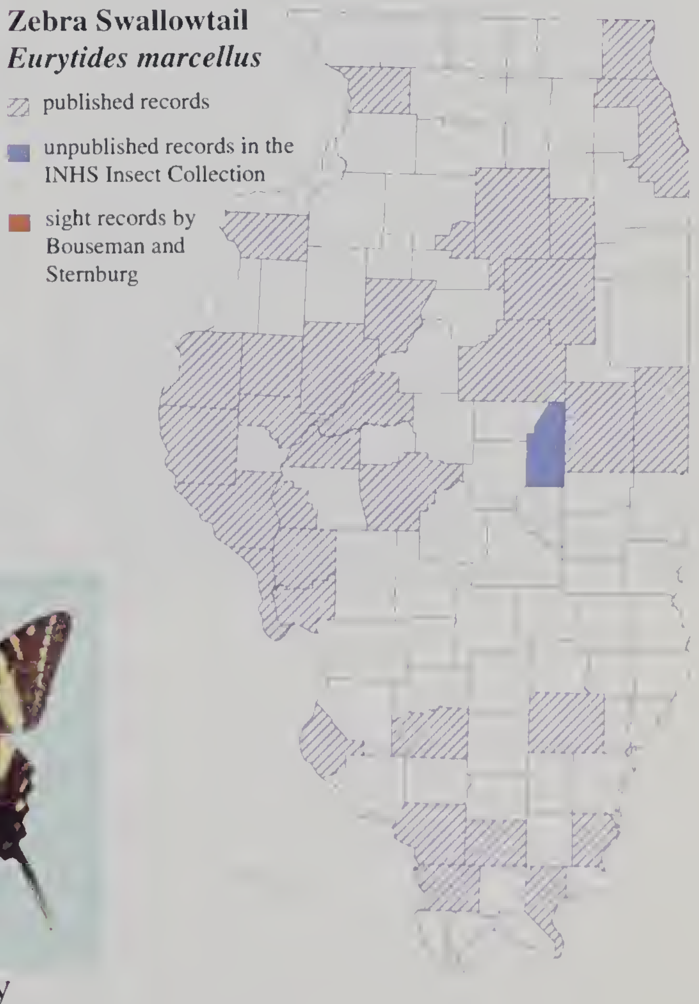
Male, Zebra Swallowtail, spring form, Champaign County, IL.



Three forms of Zebra Swallowtail (L-R): early spring, late spring, summer.



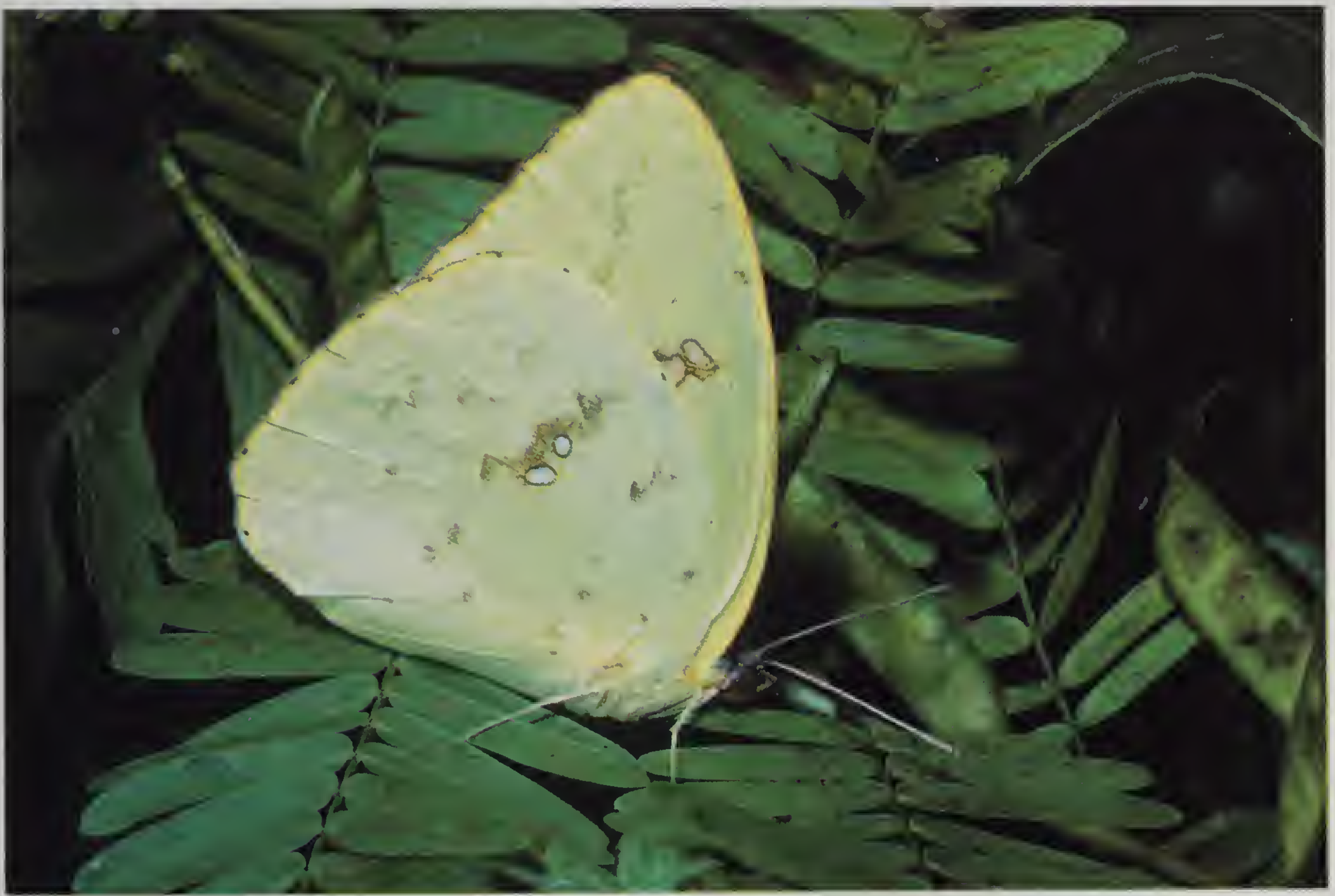
Male, Zebra Swallowtail, summer form, Champaign County, IL.



Zebra Swallowtail
Eurytides marcellus
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟧 sight records by Bouseman and Sternburg

Family Pieridae: Sulphurs, Whites, Orange Tips

Included here are the whites, the sulphurs, and the orange tips. Most are medium in size or small. The family worldwide includes other forms not present in Illinois. As adults, the pierids have the three pairs of legs developed for walking and perching. Eggs are laid on the larval food plants, usually singly. The larvae feed on the leaves where their green coloring gives them some protection from predators. Pupae will be found on the food plant or a nearby surface, held in place by a silk girdle and button. Depending on the species, overwintering is either by larvae, or most often by pupae, or rarely by adults. There are 14 species recorded from Illinois. One (*Pieris napi*) has been extirpated, and several occur only as occasional migrants. The whites and orange tips belong to the subfamily Pierinae. The sulphurs are in the subfamily Coliadinae.



Cloudless Sulphur, Mason County, IL.

Checkered White — Pieridae, Pierinae

Pontia protodice (Boisduval and LeConte)

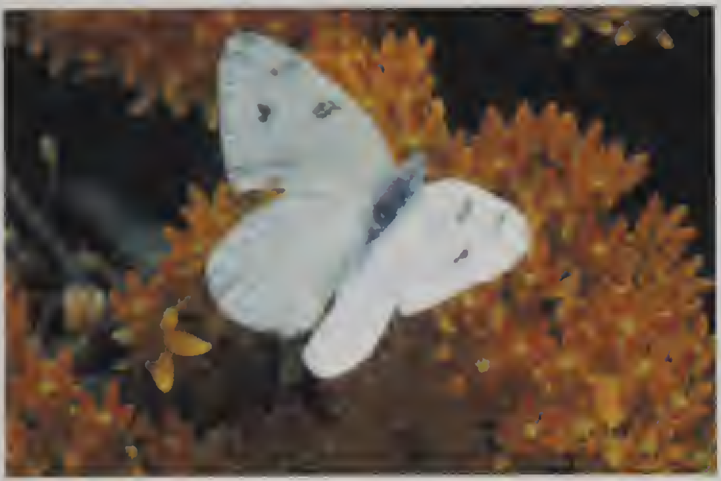
Description: Wingspan 1.75–2.25 in. White with a checkered pattern of brown-black spots, more extensive in females. Cool-weather forms are less heavily marked on the upperside, with greenish scales (due to a mix of yellow and black scales) along the wing veins on the underside.

Similar Species: Males bear a slight resemblance to the much smaller Olympia Marble. The spot pattern differs on both upperside and underside. The Olympia Marble has a greenish, marbled appearance.

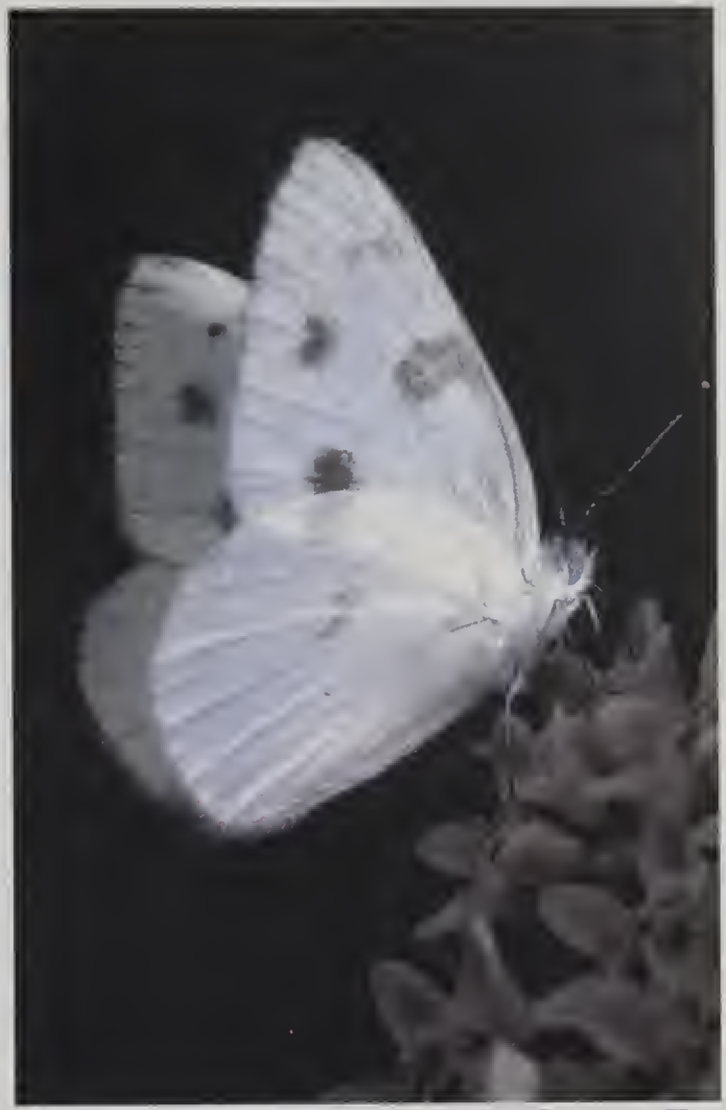
Habitat: Found in open areas, old fields, pastures, prairies, roadsides, waste areas.

Natural History: Overwinters as a pupa, but may not survive a severe Illinois winter. State recolonized each year from the South. Two or more generations each year. Larval hosts are members of the mustard family (various cresses, mustards, peppergrasses), and cultivated cabbage and its forms. Adults nectar on a variety of plants, including clovers, milkweeds, thistles and other composites, garden flowers, and others.

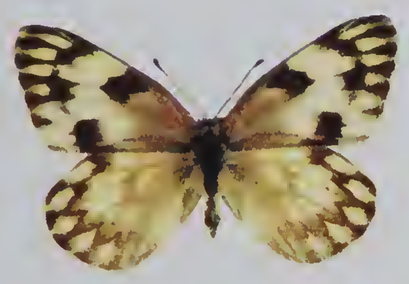
Status: Migrant species that recolonizes Illinois each year, producing breeding populations of several generations. May survive mild winters as pupae. It is a permanent resident in the southern states, extending into Mexico and Guatemala at higher elevations.



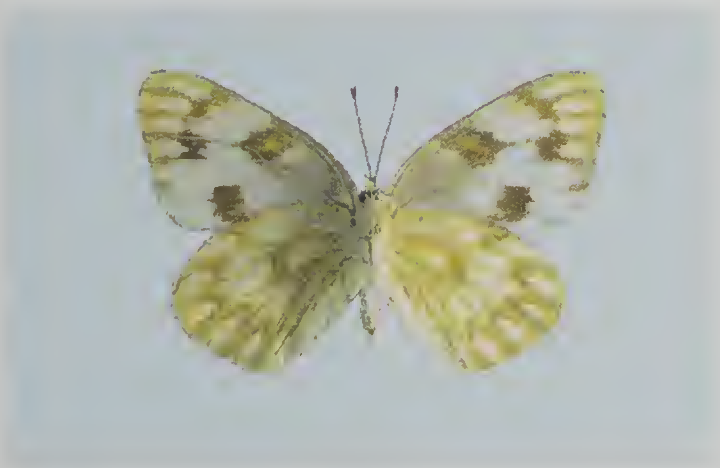
Male, Checkered White, Mason County, IL.



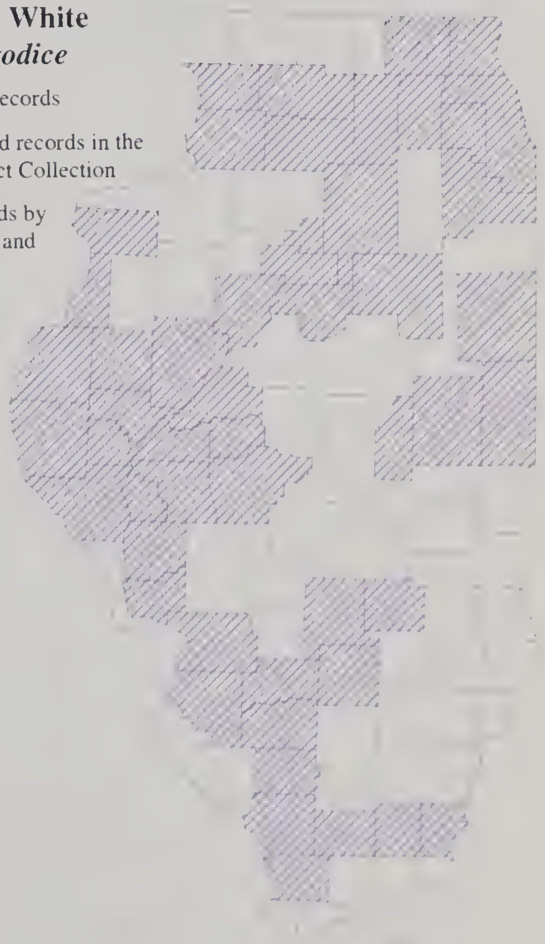
Male, Checkered White, Mason County, IL.



Female, Checkered White, upperside, Champaign County, IL.



Female, Checkered White, underside, Champaign County, IL.



Checkered White
Pontia protodice

▨ published records
🟦 unpublished records in the INHS Insect Collection
🟧 sight records by Bouseman and Sternburg

Mustard White **Pieridae, Pierinae**

Pieris napi oleracea (Harris)

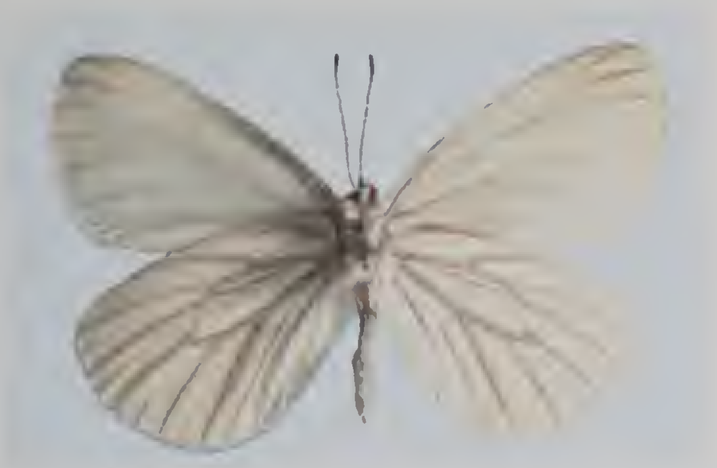
Description: Wingspan 1.25–2.25 in. Seasonably dimorphic. Summer form is all white. Spring form has the underside veins lined with green, which is due to a mix of yellow and black scales.

Similar Species: A very lightly marked Cabbage White may resemble the Mustard White somewhat, but will have faint traces of the normal black marks.

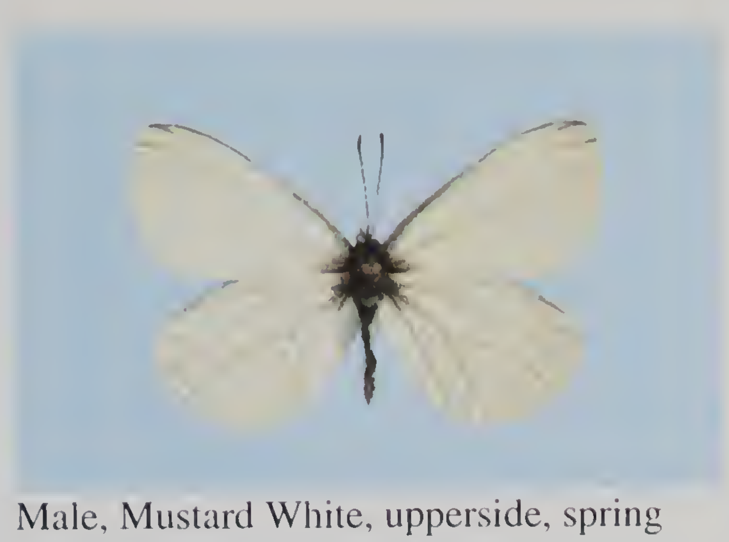
Habitat: Open woods, adjacent fields.

Natural History: Flies from April to late summer. There are two broods. Larvae feed on mustards, including *Dentaria, Arabis*, and cultivated species.

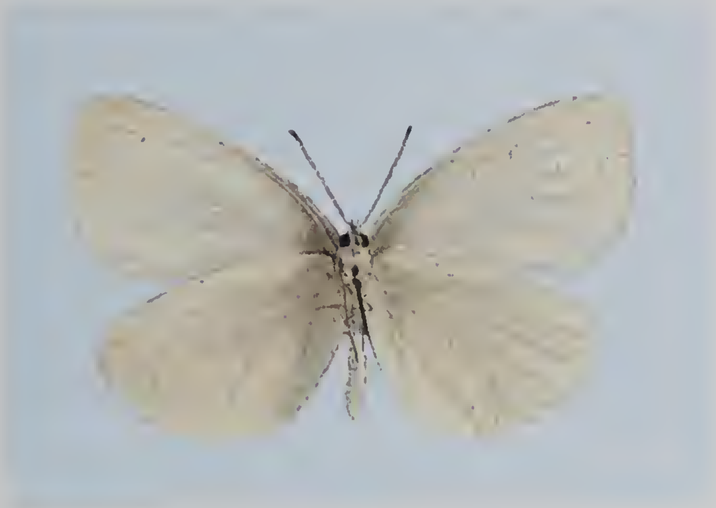
Status: Extirpated from Illinois. Records from the 1800s indicate that it formerly occurred in the northern part of the state. It still occurs in Wisconsin and could possibly reappear in Illinois.



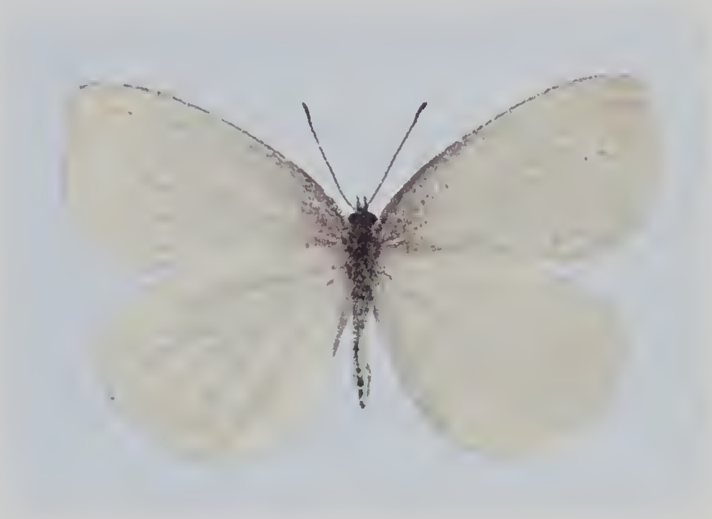
Male, Mustard White, underside, spring form, Emmet County, MI.



Male, Mustard White, upperside, spring form, Emmet County, MI.



Male, Mustard White, underside, summer form, Polk County, WI.



Male, Mustard White, upperside, summer form, Polk County, WI.

Cabbage White — Pieridae, Pierinae

Pieris rapae (Linnaeus)

Description: Wingspan 1.75–2.25 in. White with forewing apex dark. Males with one black spot on forewing, females with two. Underside white with pale yellow hindwings. Early spring individuals small, less heavily marked on upperside.

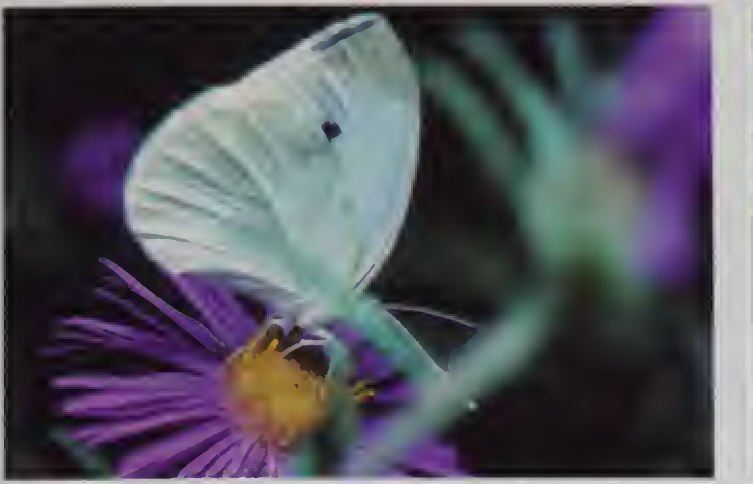
Similar Species: Mustard Whites, now extirpated from Illinois, were all white (summer), or white with underside veins marked with gray-green (spring). Males of the Checkered White have a checkered pattern of spots, positioned differently.

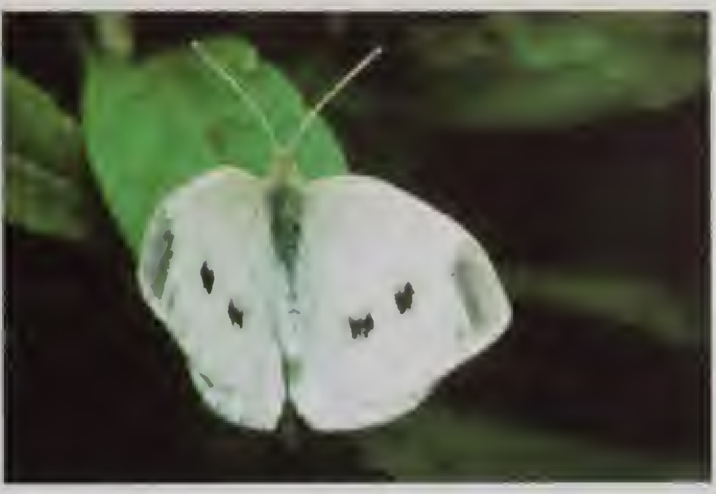
Habitat: Open areas, fields, gardens, prairies, roadsides, open woodlands.

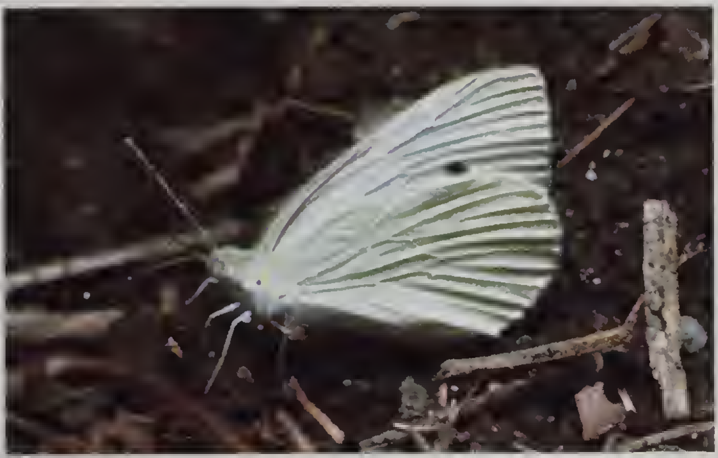
Natural History: Overwinters as a pupa fastened to host stalks or other supports where the larvae fed. Adults appear very early in spring, followed by a succession of generations until fall. Eggs are laid singly on foliage of larval hosts. The green larvae mature within two weeks and become adults a week or two later, thus ensuring many generations each year. Larvae are serious pests of cruciferous crops, and also feed upon many wild species of crucifers. Occasionally larvae feed on nasturtiums and cleome. Adults nectar on many plants.

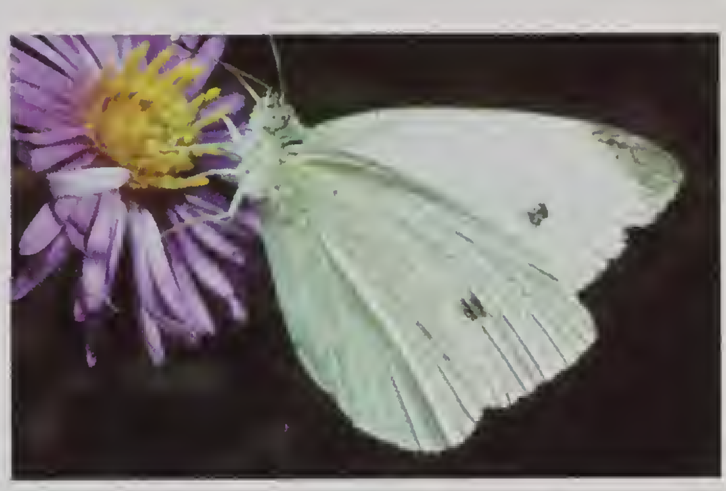
Status: Common to abundant breeding resident. Statewide. Can be an economic pest wherever cabbage and related crops occur.

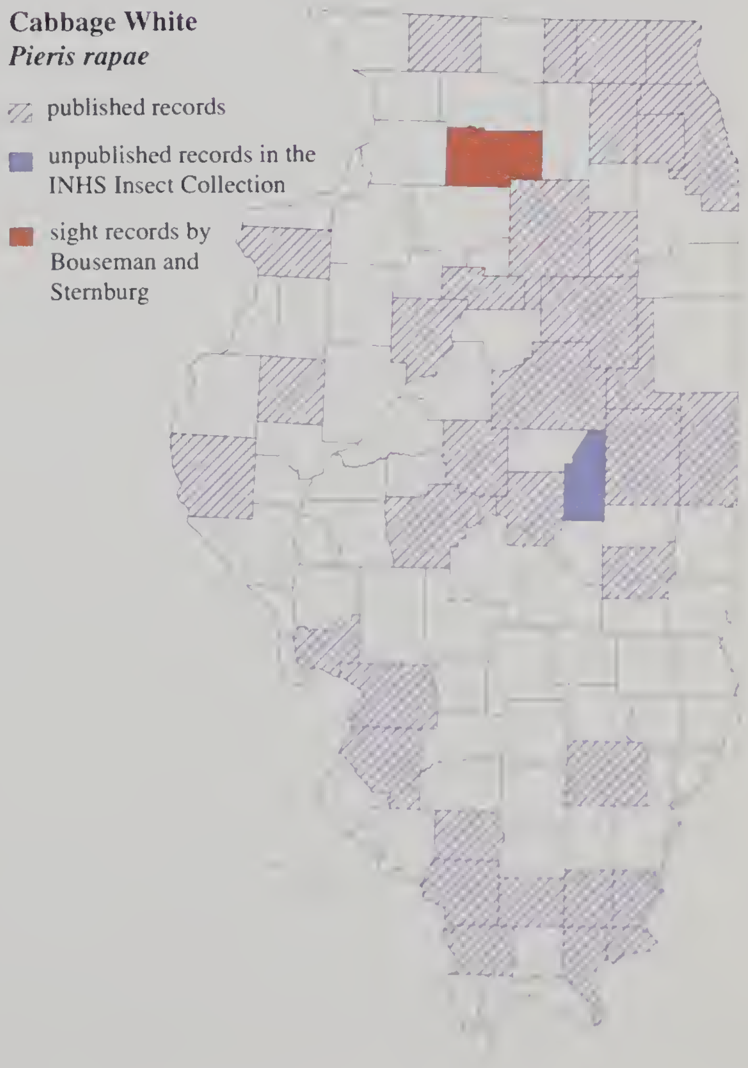
Remarks: Native to Eurasia, the Cabbage White was introduced accidentally near Quebec, Canada, about 1860. It reached the Gulf States by 1880 and now is found over most of North America, north of the Rio Grande.


Cabbage White, Champaign County, IL.


Female, Cabbage White, Champaign County, IL.


Male, Cabbage White, Lee County, IL.


Male, Cabbage White, Champaign County, IL.


Cabbage White
Pieris rapae
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Falcate Orangetip **Pieridae, Pierinae**

Anthocharis midea (Hübner)

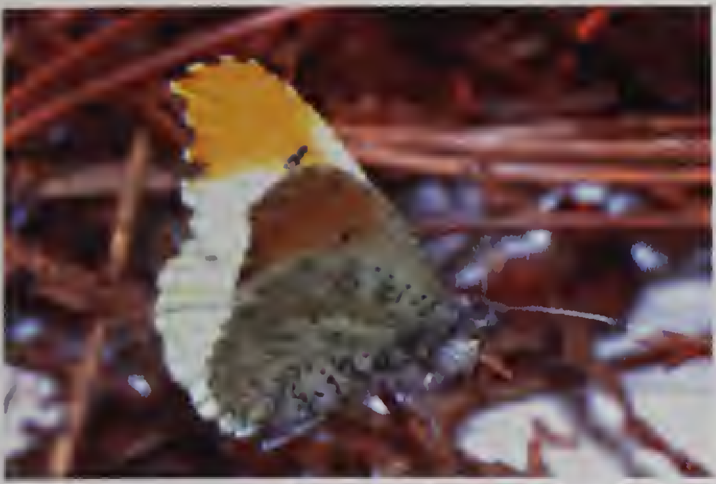
Description: Wingspan 1.5–1.8 in. Sexually dimorphic species. Males have orange-tipped forewings; females have tips white; both sexes have marginal apical black spots and a black discal spot. The underside of the hindwing is intricately patterned with greenish marbling. The green is due to a mixture of yellow and black scales.

Similar Species: Marbling of the Olympia Marble is less complex. The rosy tint of the Olympia Marble never occurs in the Falcate Orange Tip.

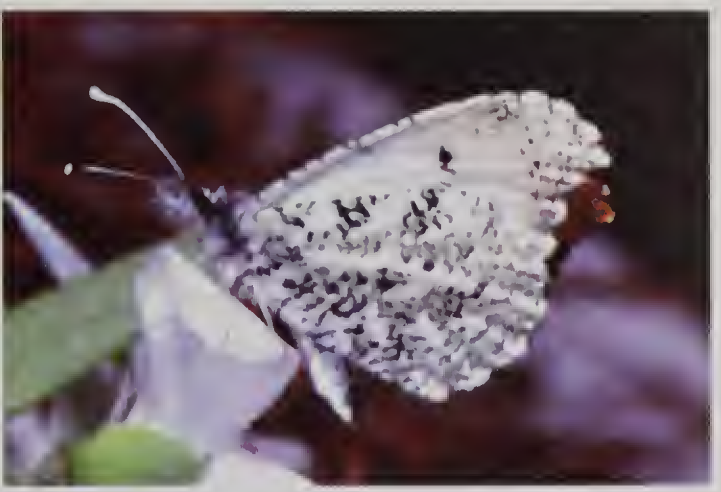
Habitat: Open woods with low vegetation.

Natural History: Pupae overwinter. Adults appear for several weeks in April or early May. There is only one generation. Adults nectar on a variety of spring flowers, often preferring the flowers of the larval hosts. Males patrol in search of females, usually flying within a few feet above ground. Females lay their eggs singly on the flower buds or seed pods of the larval hosts. These include rock cresses (*Arabis* spp.), winter cresses (*Barbarea* spp.), and other mustards. Larvae feed on buds, flowers, and seed pods. They develop directly to the pupal stage, and then enter diapause until the following spring, when development to the adult stage takes place.

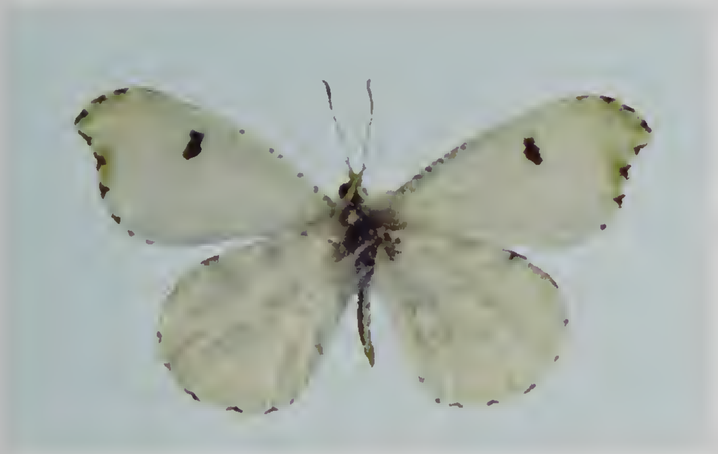
Status: Breeding resident, mostly in southern Illinois, where it is common. In some years the population extends north to central Illinois.



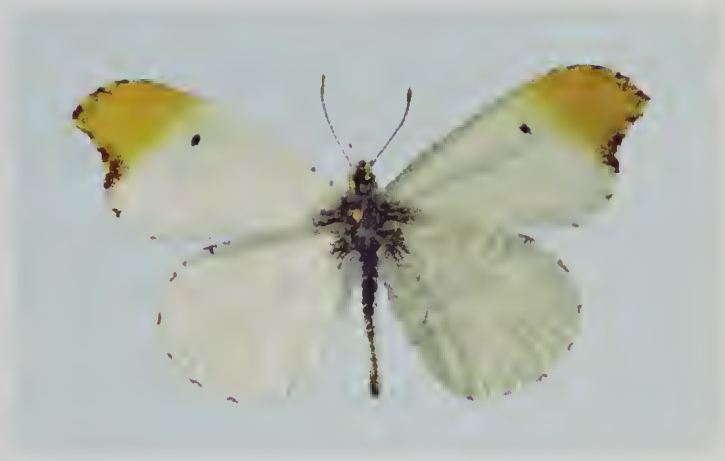
Male, Falcate Orangetip, Johnson County, IL.



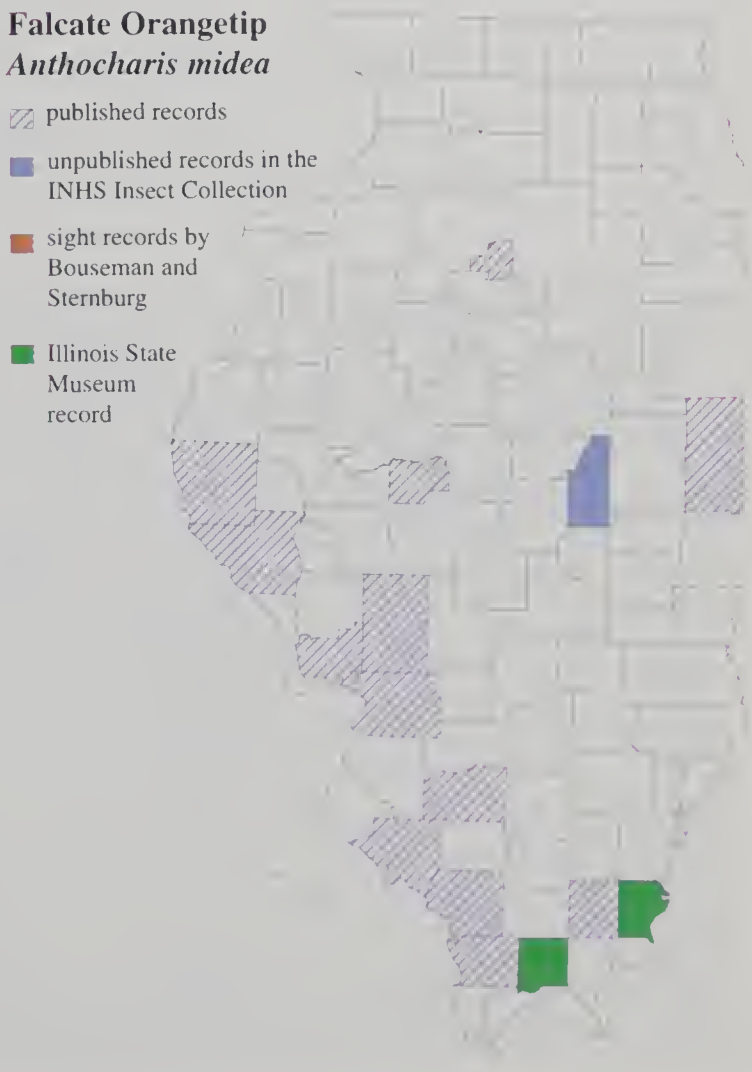
Falcate Orangetip, Johnson County, IL.



Female, Falcate Orangetip, upperside, Johnson County, IL.



Male, Falcate Orangetip, upperside, Johnson County, IL.



Falcate Orangetip
Anthocharis midea

▨ published records

🟦 unpublished records in the INHS Insect Collection

🟧 sight records by Bouseman and Sternburg

🟩 Illinois State Museum record

Olympia Marble **Pieridae, Pierinae**

Euchloe olympia (W.H. Edwards)

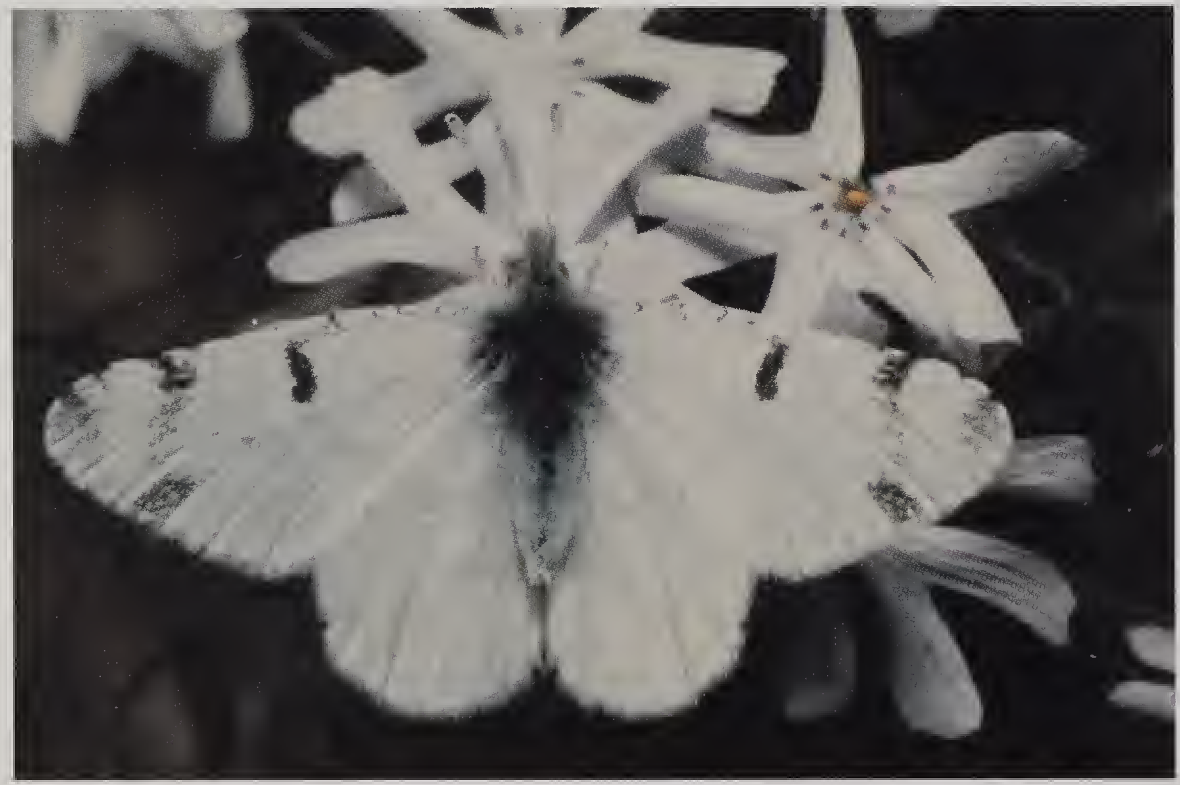
Description: Wingspan 1.2–1.8 in. Upperside white with scattered black markings. Underside white with a green marble pattern on the hindwing. The green is formed by a mix of yellow and black scales. A rosy flush is visible in most specimens on the hindwing.

Similar Species: Small male Checkered Whites have a similar appearance, but the pattern of spotting differs. Females of the Falcate Orange Tip have the apex of the forewing falcate, or hooked.

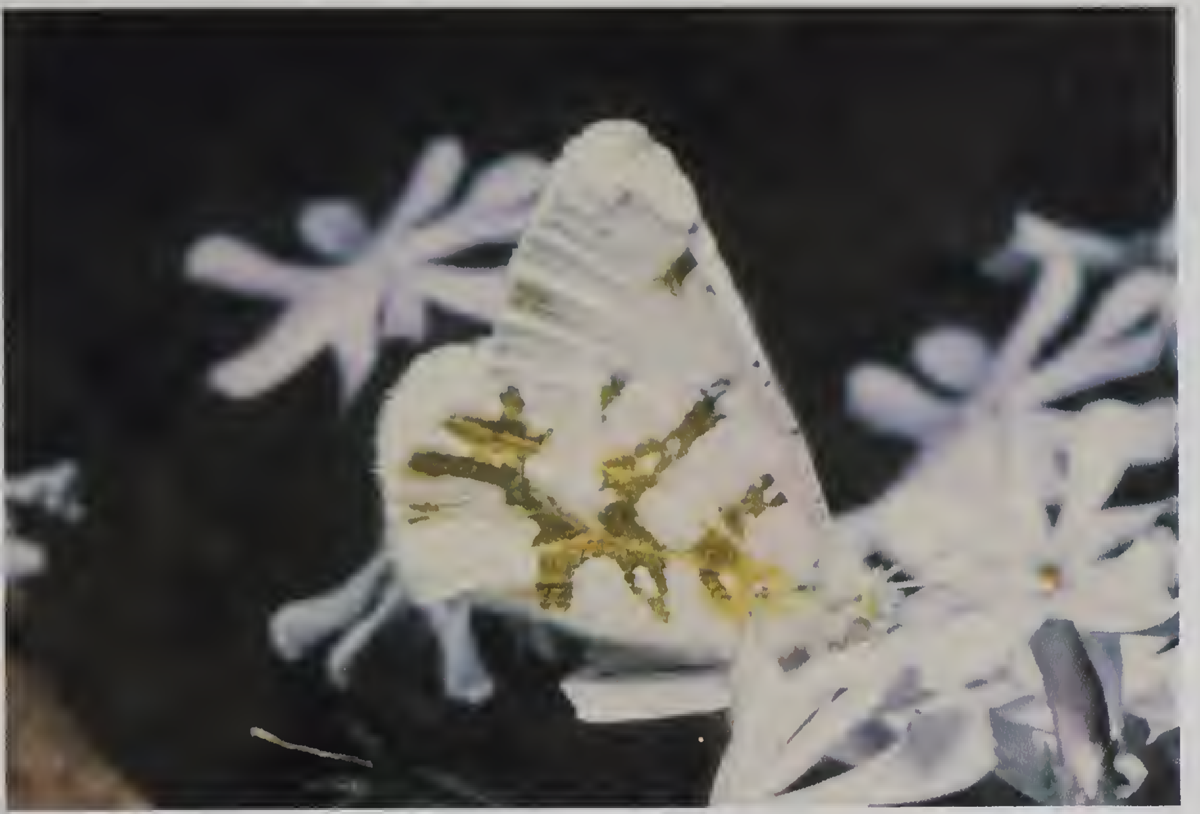
Habitat: Open woods and nearby fields with low vegetation, in arid or semi-arid locales, often sandy.

Natural History: Univoltine, with adult flight in April and May. Males patrol with a low rapid flight in search of females. Eggs are laid singly on the flower buds of rock cresses (*Arabis* spp.) Larvae possibly feed on the flower parts and seed pods. After pupation diapause begins and persists through the summer, fall, and winter until emergence in April. Adults feed on flowers of the host plants and other spring flowers of open areas. Cleft phlox is often visited. Unlike most pierids, adults do not visit moist spots.

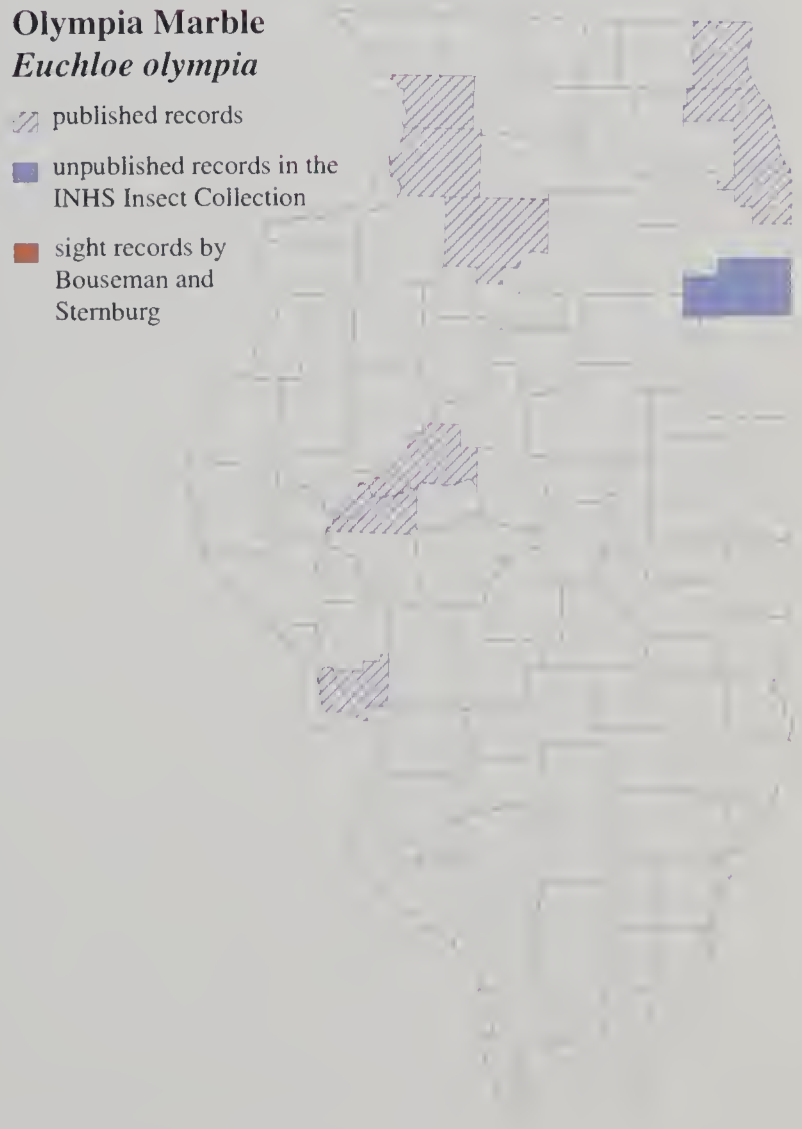
Status: In Illinois known primarily from sandy sites in Kankakee and Mason counties, and scattered localities in other northern counties. Within its general range, scattered populations occur. The species is usually scarce, but in some years may be locally common within a restricted area.



Male, Olympia Marble, Mason County, IL.



Male, Olympia Marble, Mason County, IL.



Olympia Marble
Euchloe olympia

▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Orange Sulphur Pieridae, Coliadinae

Colias eurytheme Boisduval

Description: Wingspan 1.6–2.5 in. Sexually dimorphic. The upperside of the male is orange with black marginal borders. Females are either orange or white with the black borders bearing light-colored spots. The underside of both sexes is yellow-orange or white, with a double red-margined spot in the center of the hindwing. Early-spring individuals are small, and the orange color is less intense than in summer specimens. Intermediates in color with the Clouded Sulphur are hybrids, which occur when both species are abundant in the same field.

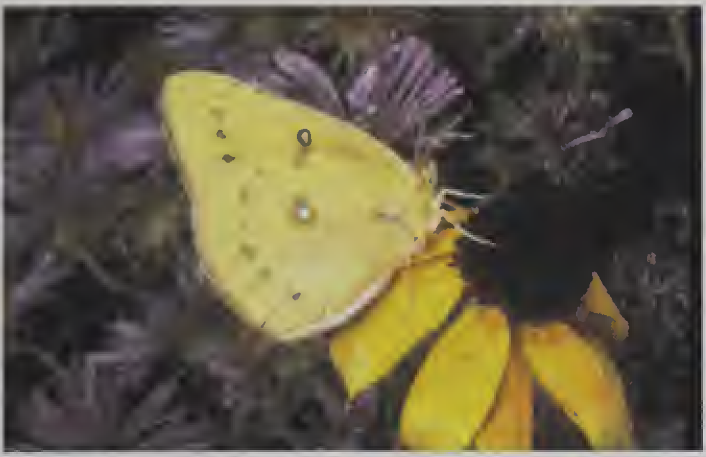
Similar Species: The Clouded Sulphur has similar markings, but is yellow, not orange. White females of the two species are sometimes difficult to separate. As a rule, the white female of the Clouded Sulphur has the black border markings narrower.

Habitat: Open areas everywhere, clover and alfalfa fields especially. Vacant lots, roadsides.

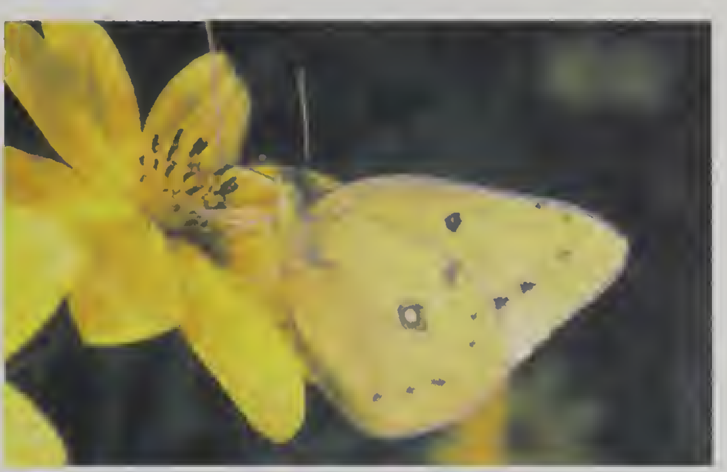
Natural History: Multivoltine with many generations each year. Pupae, occasionally adults, overwinter. Males patrol in search of females. Females lay eggs singly on larval hosts, with alfalfa preferred. Other hosts are clover, vetches, wild indigo (*Baptisia* spp.), and related species. Larvae feed on the leaves. Adults nectar on a variety of plants, much as do Clouded Sulphurs. Fresh males take moisture from wet soil, often in large groups.

Status: Breeding resident. Common to abundant, often the most common butterfly present.

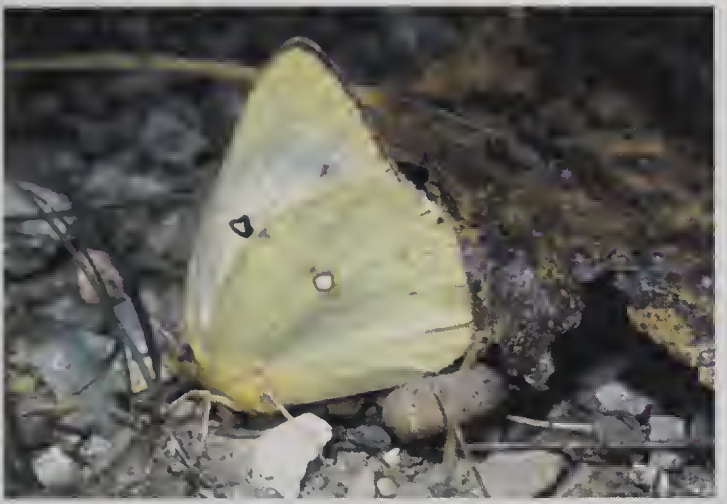
Remarks: Also called Alfalfa Butterfly.



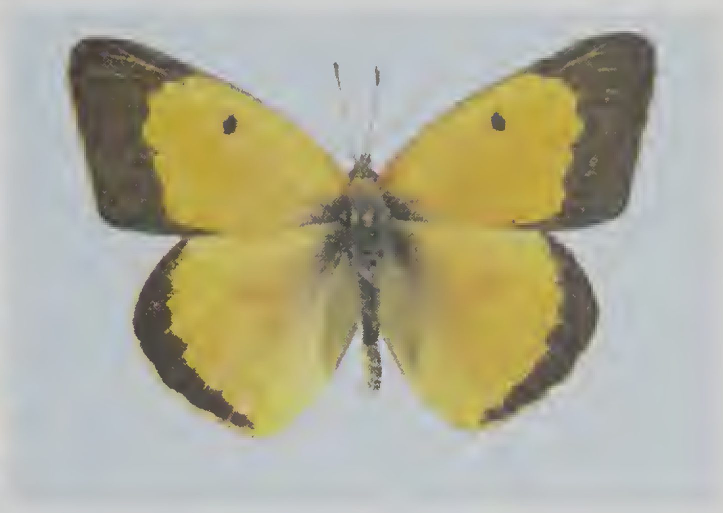
Female, Orange Sulphur, orange form, Champaign County, IL.



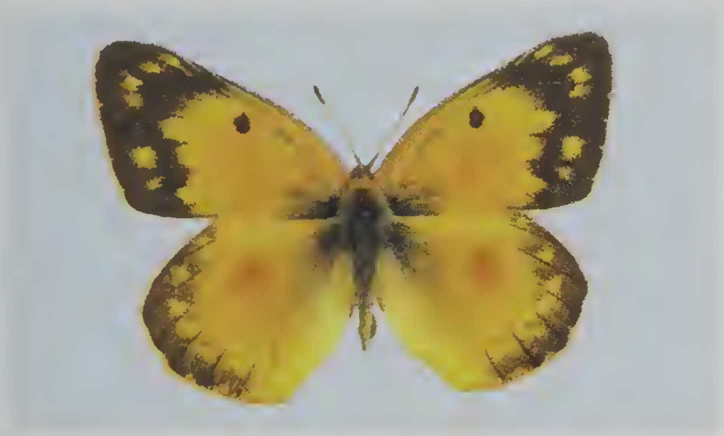
Male, Orange Sulphur, Iroquois County, IL.



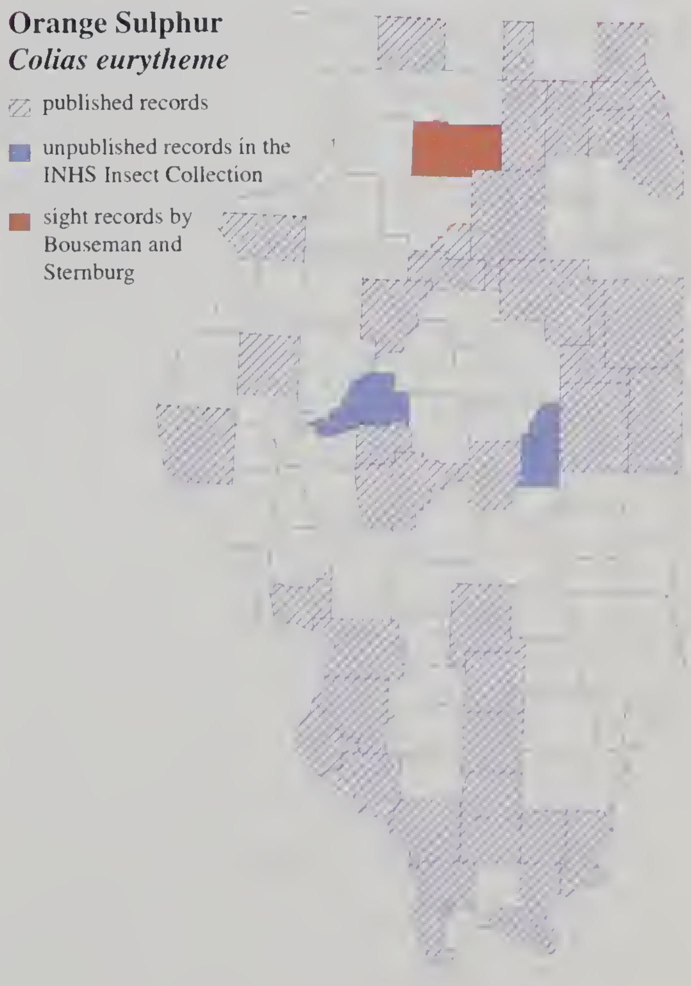
Female, Orange Sulphur, white form, Champaign County, IL.

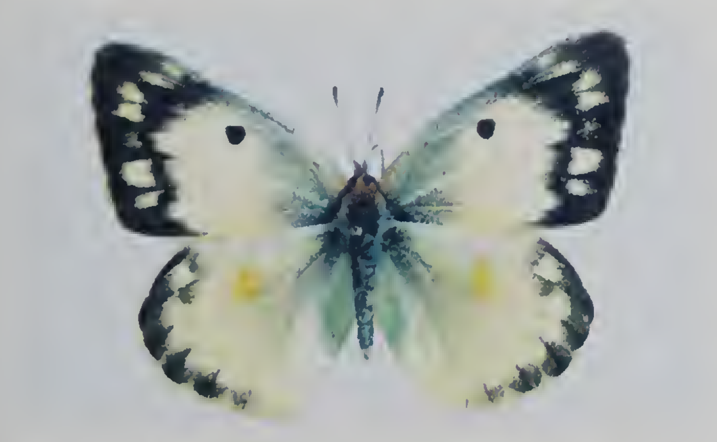


Male, Orange Sulphur, upperside, Champaign County, IL.



Female, Orange Sulphur, upperside, orange form, Champaign County, IL.


Orange Sulphur
Colias eurytheme
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg



Female, Orange Sulphur, upperside, white form, Champaign County, IL.

Clouded Sulphur — Pieridae, Coliadinae

Colias philodice Godart

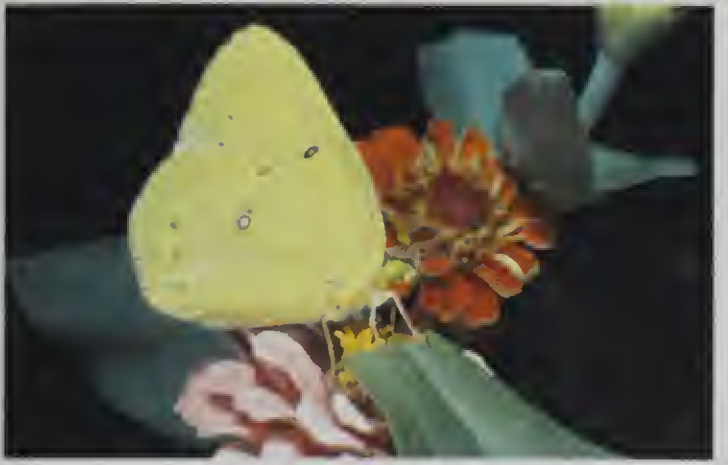
Description: Wingspan 1.8–2.4 in. Sexually dimorphic. Males are yellow, with a black marginal border on the upperside of both wings. Most females are yellow, with the black border containing yellow spots. Many females are white instead of yellow. The underside of both sexes is yellow or white, with a red-bordered double spot on the hindwing. Cool-season (spring and fall) individuals are smaller and are darker on the underside, with a greenish cast, due to a mix of yellow and black scales.

Similar Species: The Orange Sulphur is an orange version of the Clouded Sulphur. Its black markings are darker and wider. Some white females are difficult to separate to species. Specimens that have the yellow tinged with orange are hybrids of the two species.

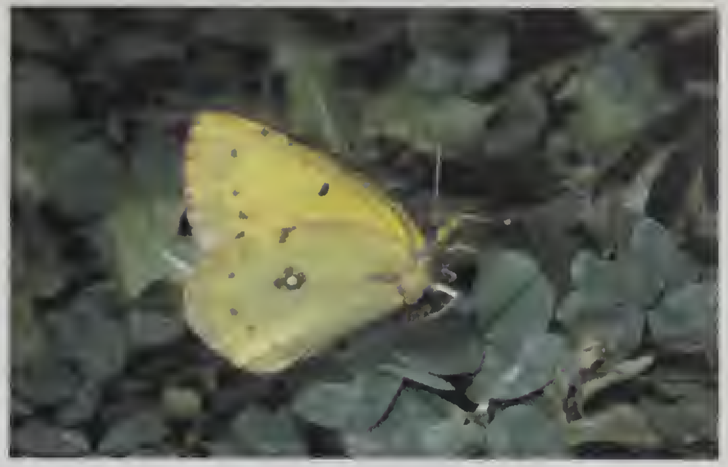
Habitat: Open fields, roadsides, meadows, prairies; waste areas wherever clovers are found.

Natural History: Multivoltine, with many generations each year. Flies from April to November or later in some years. The species overwinters in the pupal stage. Males patrol in search of females. Females lay eggs singly on clovers, alfalfa, and related plants. White clover is preferred. Both sexes nectar on a succession of plants, depending on the season. Flowers visited include dandelions (in the spring), clovers, milkweeds, sunflowers, alfalfa, tickseeds, and asters. Males are frequent visitors to moist soil, often forming large aggregations, called puddle clubs. Where clover and alfalfa are grown, the air above the fields may be alive with this species and the Orange Sulphur.

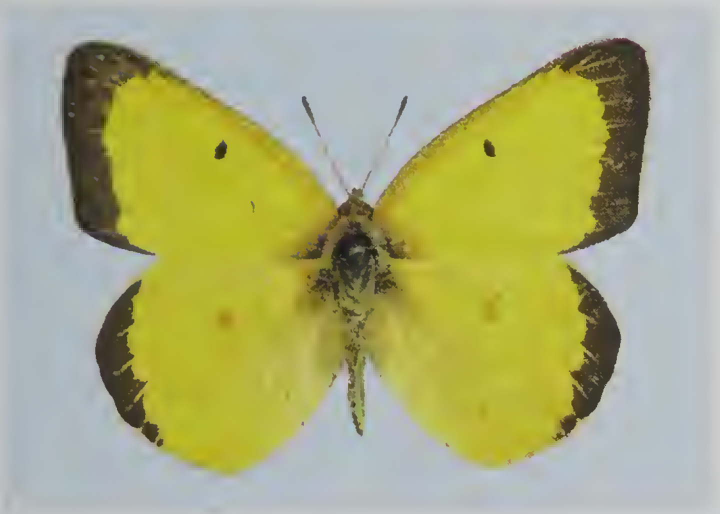
Status: Permanent breeding resident. Common to abundant.



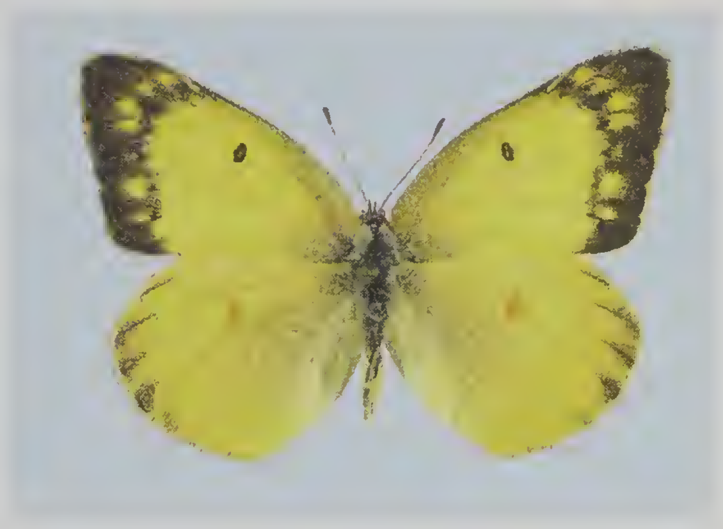
Clouded Sulphur, summer form, Champaign County, IL.



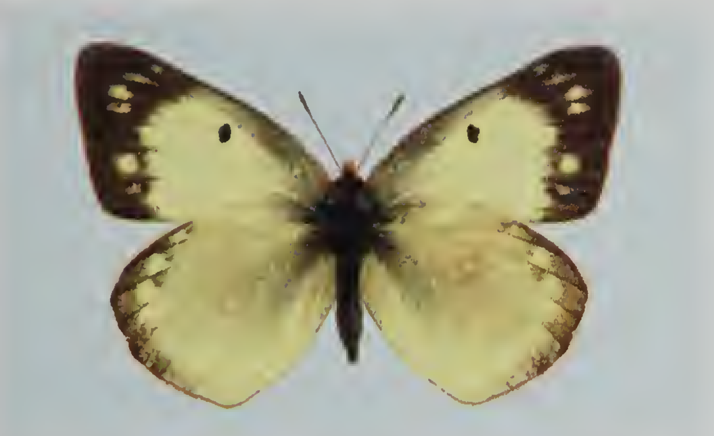
Clouded Sulphur, cold season form, Champaign County, IL.



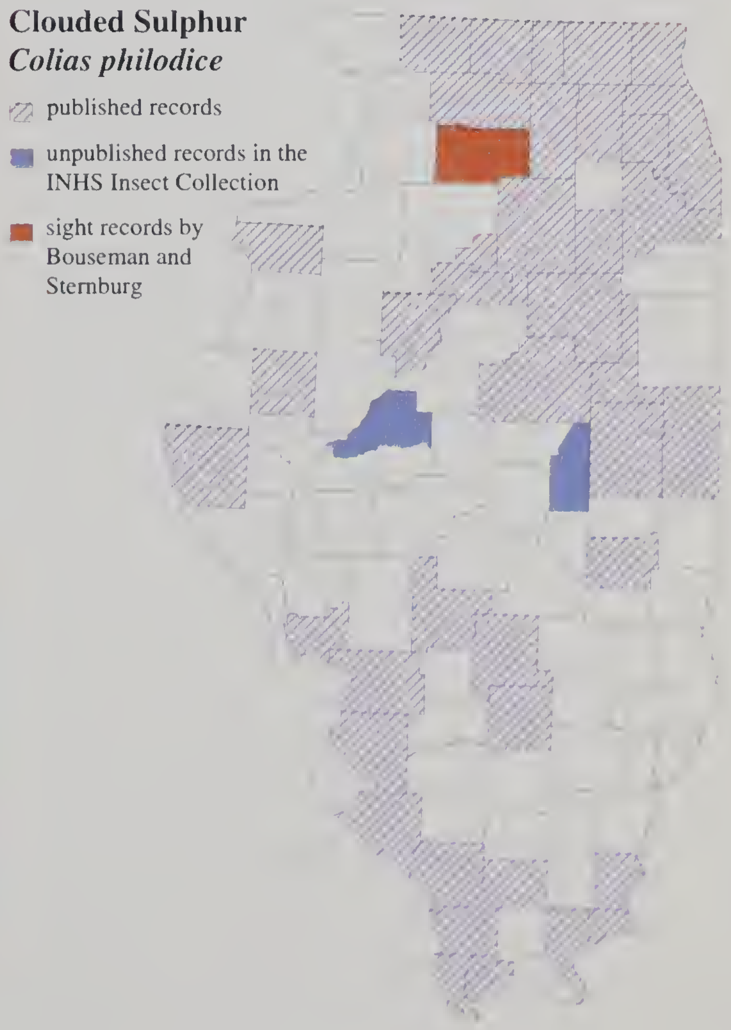
Male, Clouded Sulphur, upperside, Champaign County, IL.



Female, Clouded Sulphur, upperside, yellow form, Champaign County, IL.

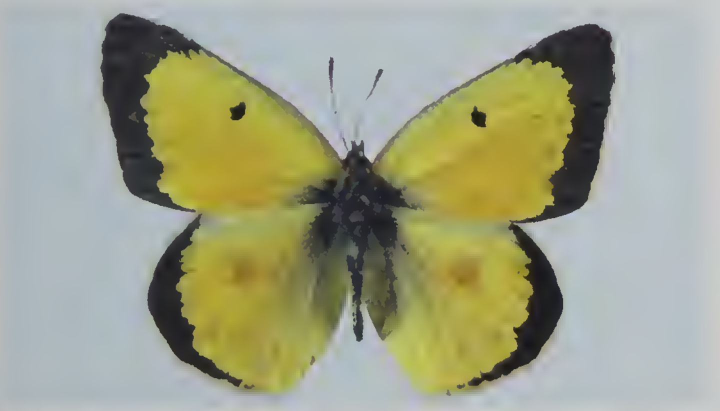


Female, Clouded Sulphur, upperside, white form, Champaign County, IL.



Clouded Sulphur
Colias philodice

▨ published records
■ unpublished records in the INHS Insect Collection
■ sight records by Bouseman and Sternburg



Male, hybrid of Orange and Clouded Sulphur, upperside, Champaign County, IL.

Dog Face Sulphur **Pieridae, Coliadinae**

Colias cesonia (Stoll)

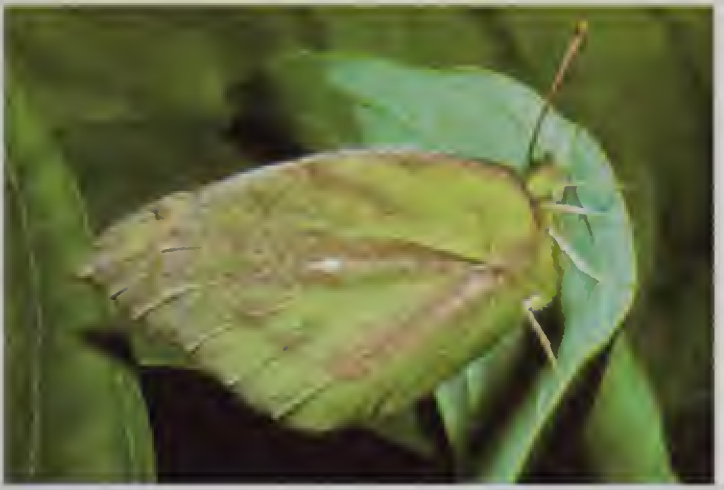
Description: Wingspan 2.5–2.75 in. Yellow on the upperside with irregular black borders, narrower on the hindwing with yellow extending into the forewing border, giving the suggestion of a dog's head. Undersides of summer broods are mostly yellow; fall broods have extensive pink shading, especially on the hindwing. The pink color is cryptic when fall colors are present. Males have black borders sharper in outline than do females.

Similar Species: In motion it can be confused with the Clouded Sulphur. The slightly falcate forewing apex always distinguishes the Dog Face Sulphur.

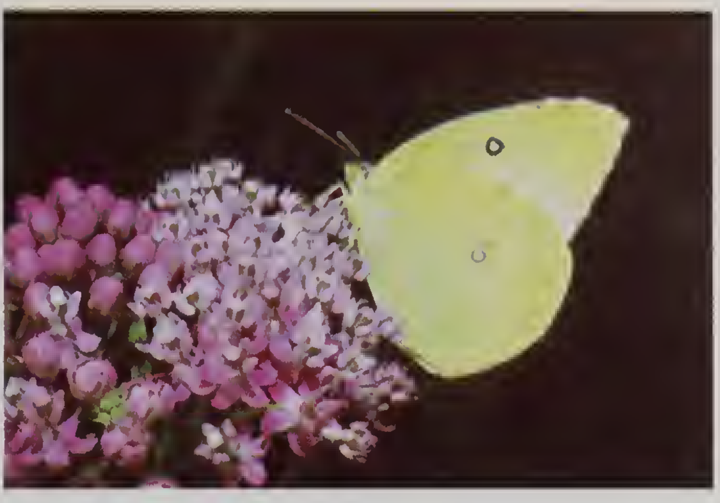
Habitat: Open areas, margins of woods, along streams, roadsides, prairies, pastures. Look for stands of *Amorpha fruiticosa* (false indigo).

Natural History: Two or more generations per year. Local populations form where migrants find suitable larval hosts, which include clovers and other legumes, especially false indigo. Adults, paticularly males, are fast, agile fliers, not easily captured unless nectaring at flowers. They nectar at a variety of flowers, including clovers, milkweeds, and asters. Larvae feed on foliage, usually resting on the leaf stem. They are all green or green with light annular bands that render them cryptic when resting along the leaf of *Amorpha*. The late summer and fall generation adults are in reproductive diapause and overwinter as adults. Probably few survive in Illinois. Whether any return south is not known.

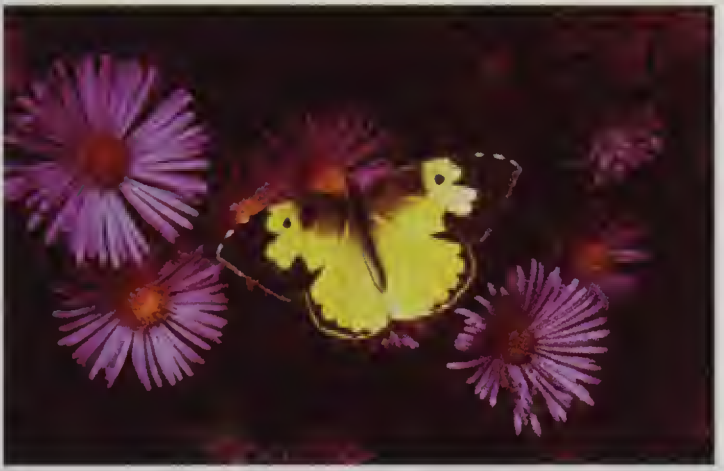
Status: A migrant species that recolonizes the state each year from more southern populations. Generally sporadic, usually not common, but sometimes large local populations form. The species cannot survive freezing temperatures, and rarely survives an Illinois winter.



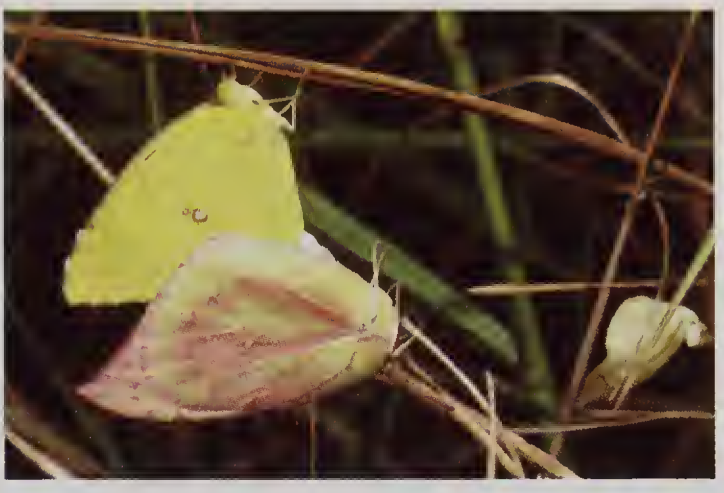
Female, Dog Face Sulphur, fall form, Vermilion County, IL.



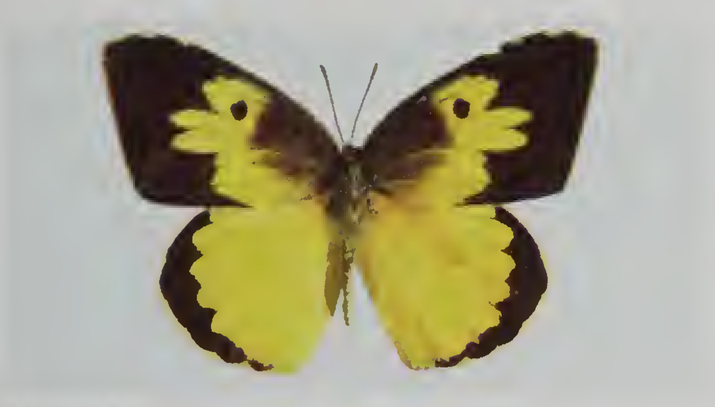
Male, Dog Face Sulphur, underside, summer form, Vermilion County, IL.



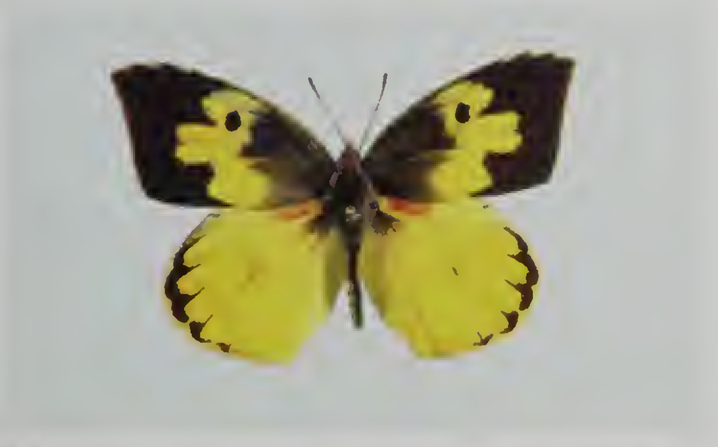
Male, Dog Face Sulphur, summer form, Vermilion County, IL.



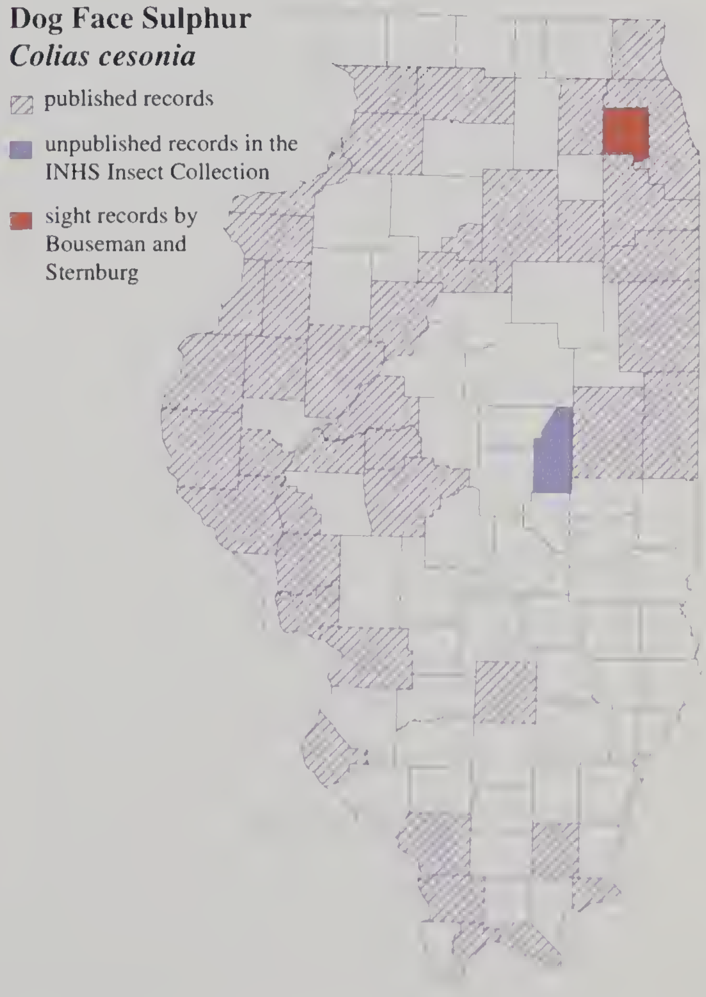
Mated pair—male [summer form] upper, female [fall form] lower, Dog Face Sulphur, Vermilion County, IL.



Male, Dog Face Sulphur, upperside, summer form, Vermilion County, IL.



Male, Dog Face Sulphur, upperside, fall form, Vermilion County, IL.


Dog Face Sulphur
Colias cesonia
▨ published records
🟪 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Cloudless Sulphur — Pieridae, Coliadinae

Phoebis sennae eubule (Linnaeus)

Description: Wingspan 2.5–3.0 in. Male upperside lemon yellow, underside with faint spots. Female upperside yellow, sometimes pale, with black marginal spots, underside with spots more developed than in male.

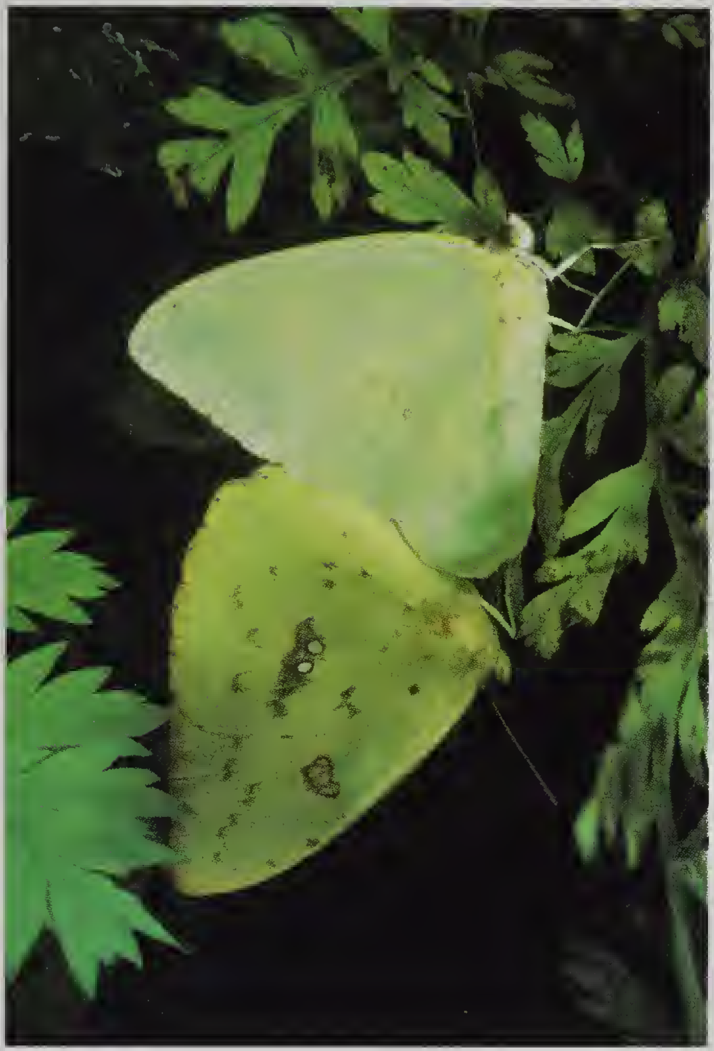
Similar Species: None in Illinois.

Habitat: Open areas, meadows, pastures, prairies, roadsides, gardens.

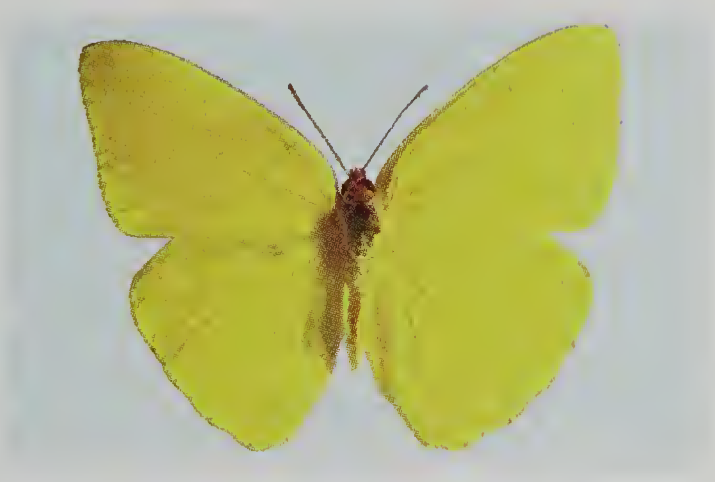
Natural History: A southern insect that reinvades the state every year. Breeding populations form in an unpredictable manner. In some years the species may be found wherever suitable habitat occurs. In other years, the species may be restricted to the southern counties. Males patrol widely in search of females. Flight is fast and powerful. Eggs are laid singly on legumes, with *Cassia* species favored. In the fall, individuals can be seen flying south; in a year when they are common there may be a steady flight past a given site. Adults nectar on many different flowers. Males are frequent visitors to damp mud and stream shores.

Status: A migratory species that does not survive freezing temperatures. Breeding resident during summer and early fall. In some years common, in other years it may be scarce.

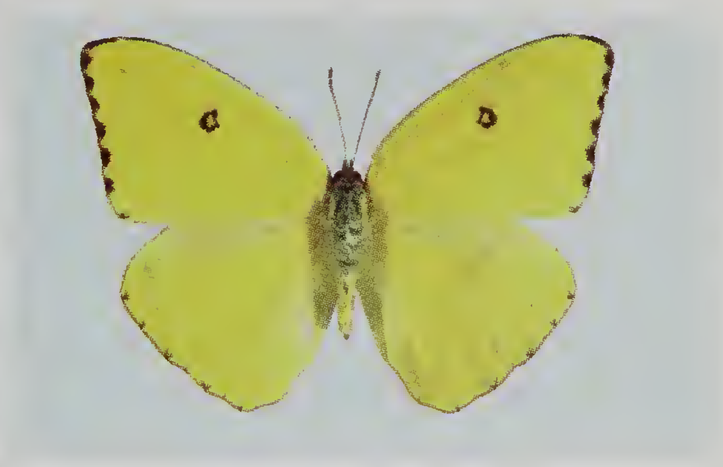
Remarks: The genus *Phoebis* is subtropical and tropical throughout the Neotropics. The Cloudless Sulphur is the only member of the genus that regularly enters and breeds in Illinois.



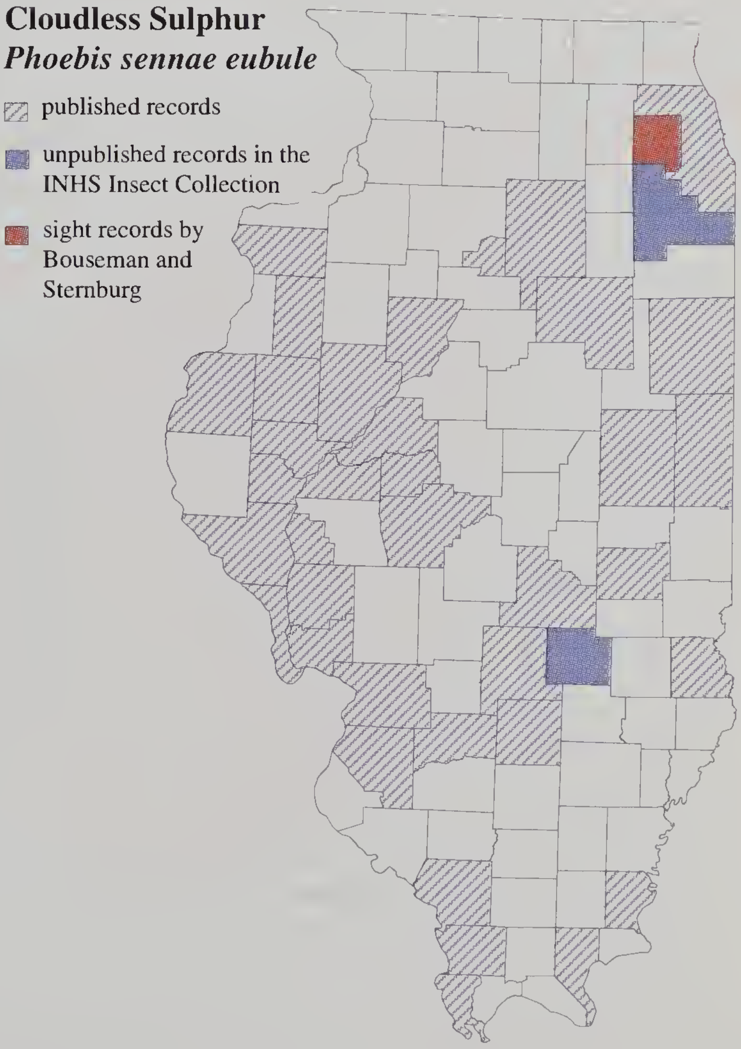
Mated pair (male above, female lower), Cloudless Sulphur, Mason County, IL.



Male, Cloudless Sulphur, upperside, Iroquois County, IL.



Female, Cloudless Sulphur, upperside, Champaign County, IL.



Cloudless Sulphur
Phoebis sennae eubule

▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Orange-barred Sulphur **Pieridae, Coliadinae**

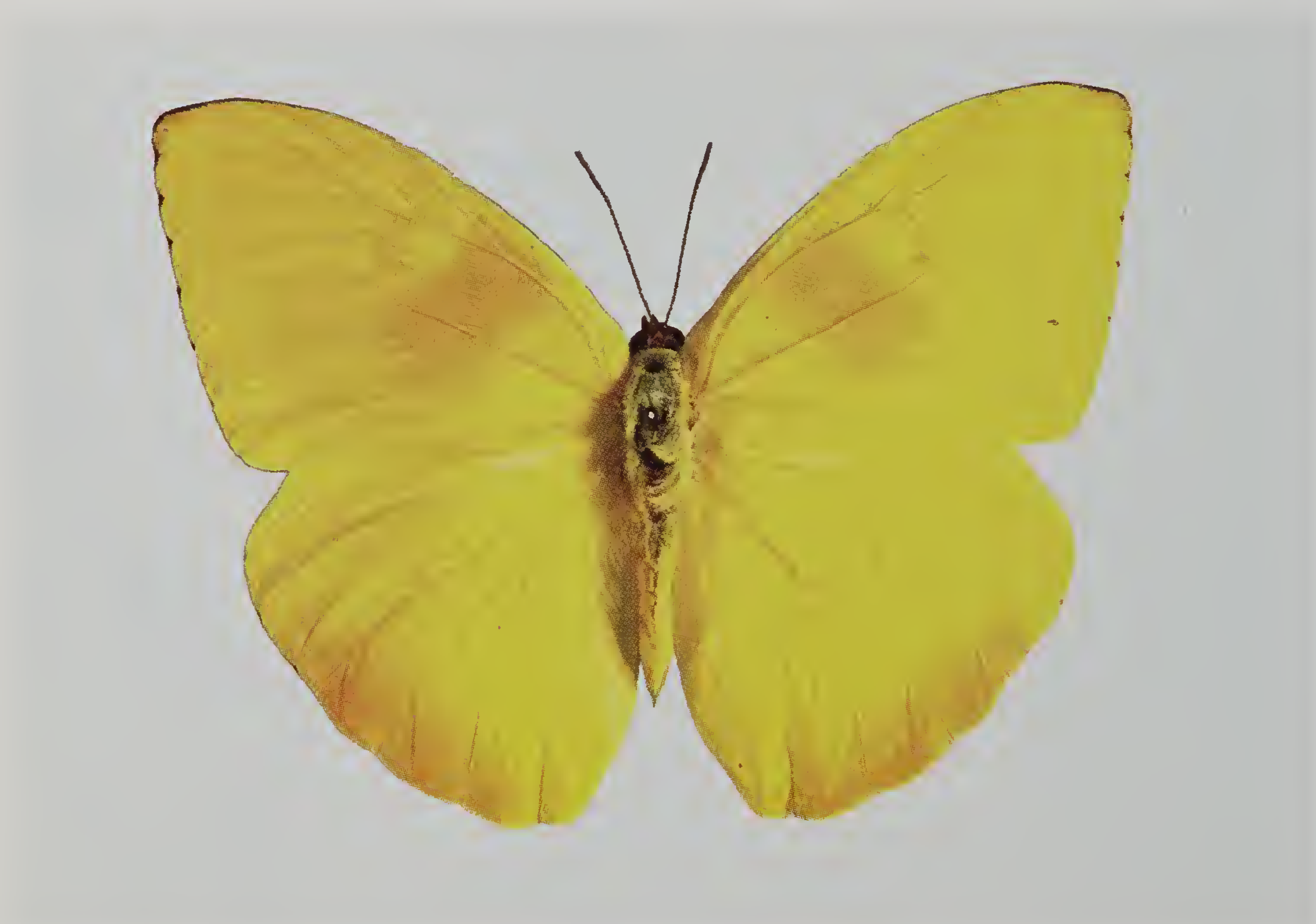
Phoebis philea Johansson

Description: Wingspan 3–4 in. Male upperside yellow with an orange bar on forewing, and the distal third of the hindwing orange. Female upperside yellow with black marginal and submarginal spots. Distal half of hindwing orange. Some females are white instead of yellow. Both sexes have undersides orange, sometimes with red spots.

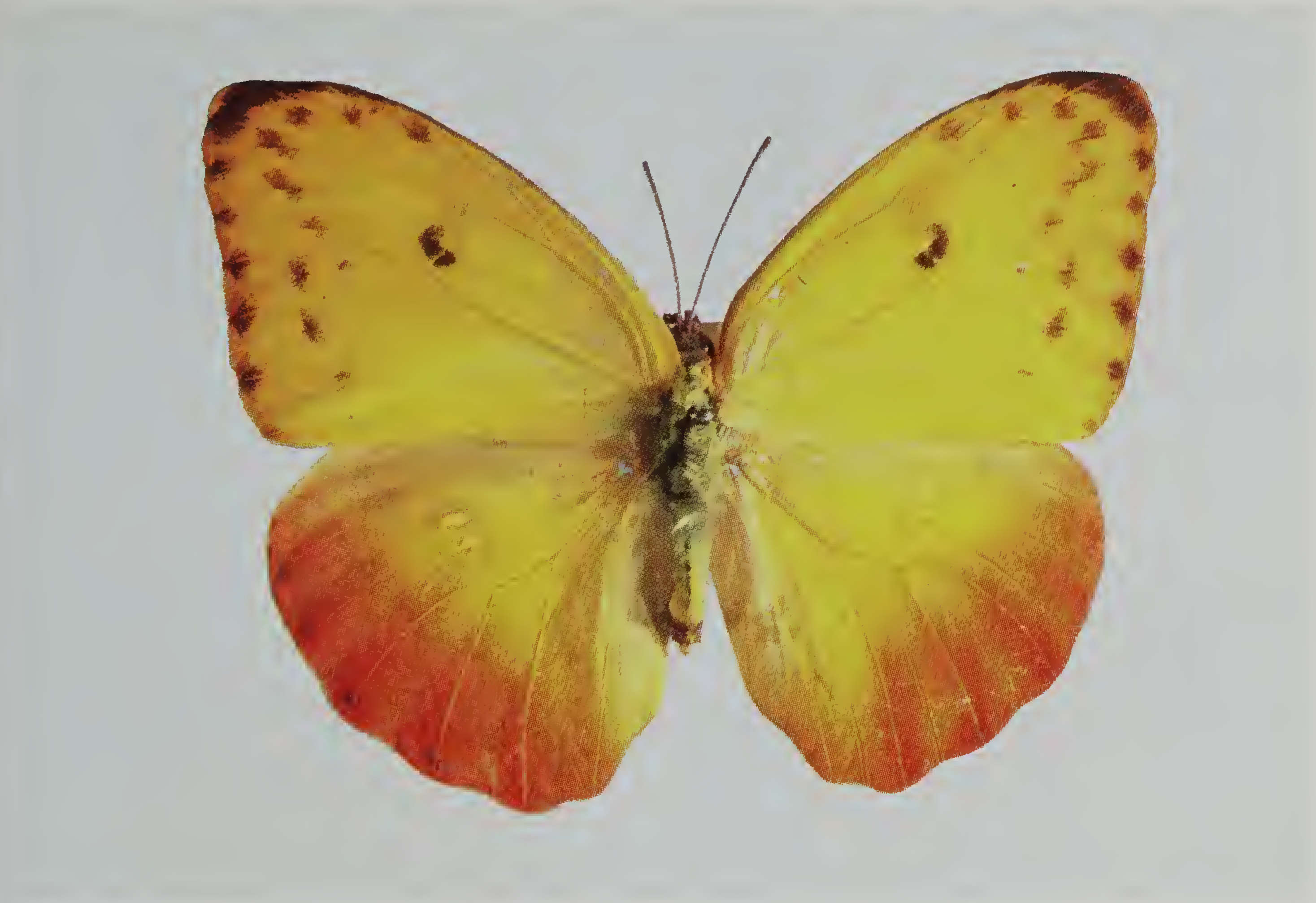
Similar Species: None in Illinois.

Natural History: This large, spectacular, and beautiful tropical butterfly occurs in Illinois only as a very rare vagrant. Breeding populations occur only far to the south, in Florida and Mexico south to Brazil. Larvae feed on *Cassia*. Adults are fast and agile fliers, often high above the ground. They nectar at many flowers, including tubular kinds, and males also visit moist earth.

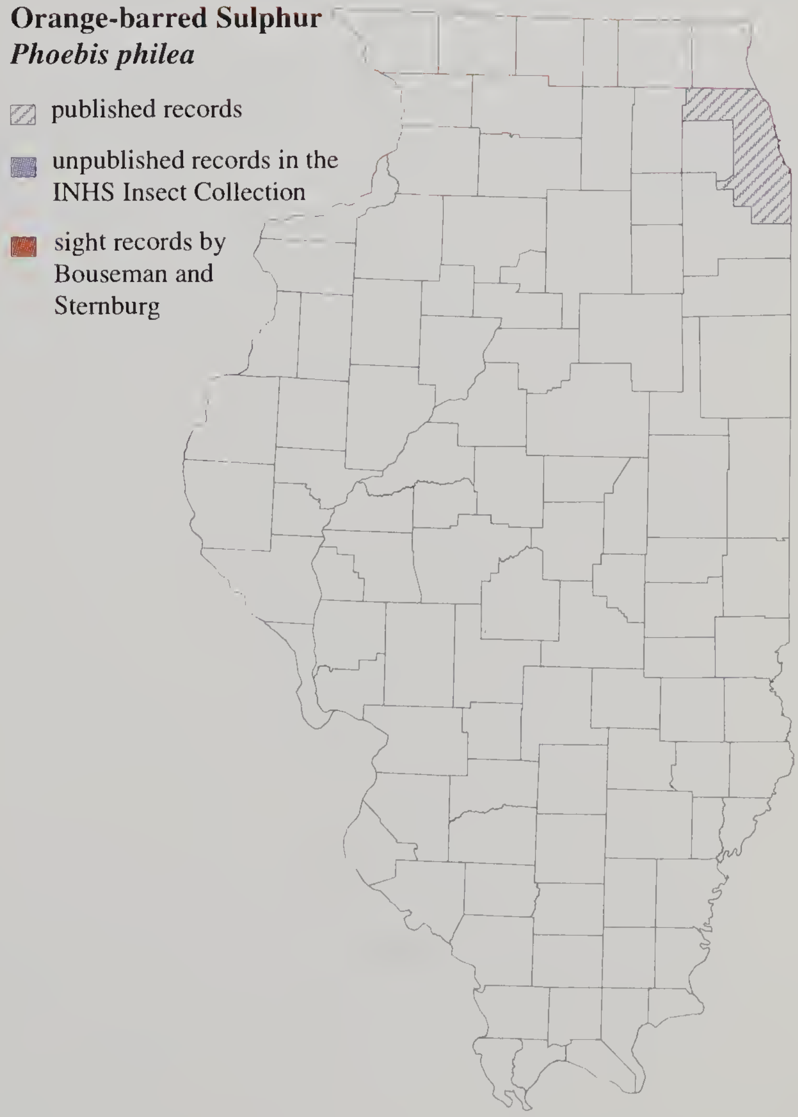
Status: A very rare vagrant, not known to breed in the state. It has been taken as far north as Wisconsin.



Male, Orange-barred Sulphur, upperside, Oaxaca, Mexico



Female Orange-barred Sulphur, upperside, Brazil.



Orange-barred Sulphur
Phoebis philea

▨ published records

🟦 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg

Mexican Yellow — Pieridae, Coliadinae

Eurema mexicanum (Boisduval)

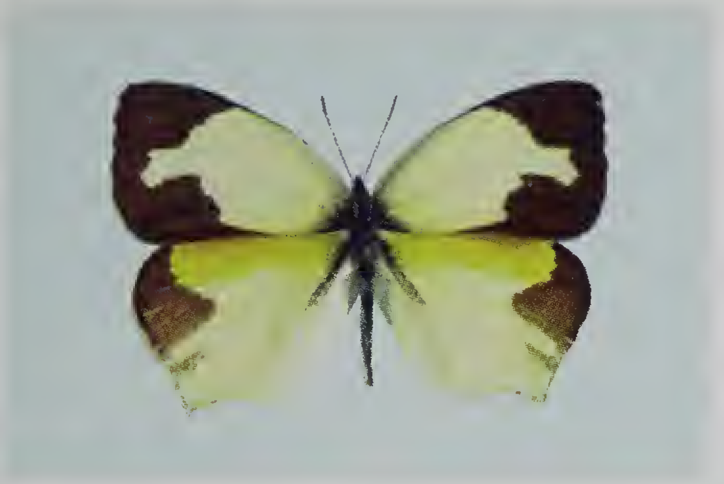
Description: Wingspan 1.7–2.5 in. Sexually dimorphic. Cream white with irregular black margins, giving the suggestion of a dog's head. Males are yellower than females. The hindwings have short tails.

Similar Species: None in Illinois.

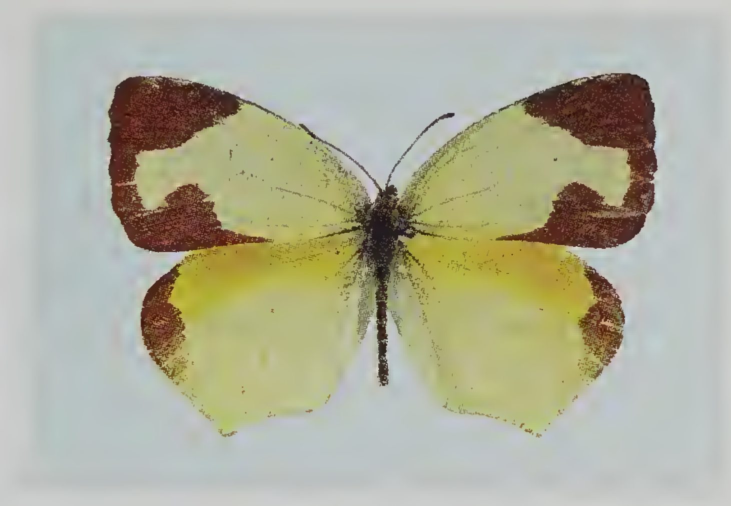
Habitat: Open areas, roadsides, fields, and prairies.

Natural History: A tropical butterfly from Mexico and southern Texas that occasionally strays north to Illinois and adjacent states.

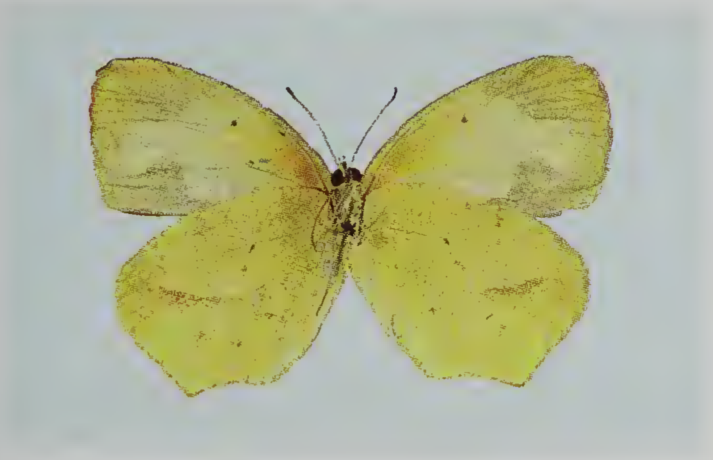
Status: Not a breeding resident. It is a rare sporadic late summer and fall vagrant.



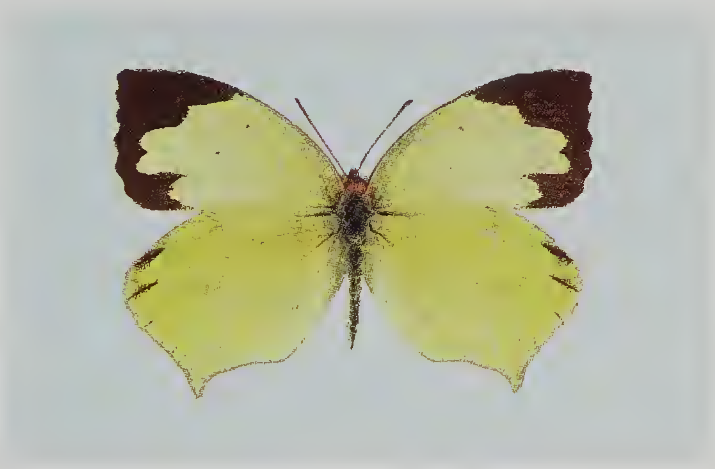
Male, Mexican Yellow, upperside, Michoacan, Mexico.



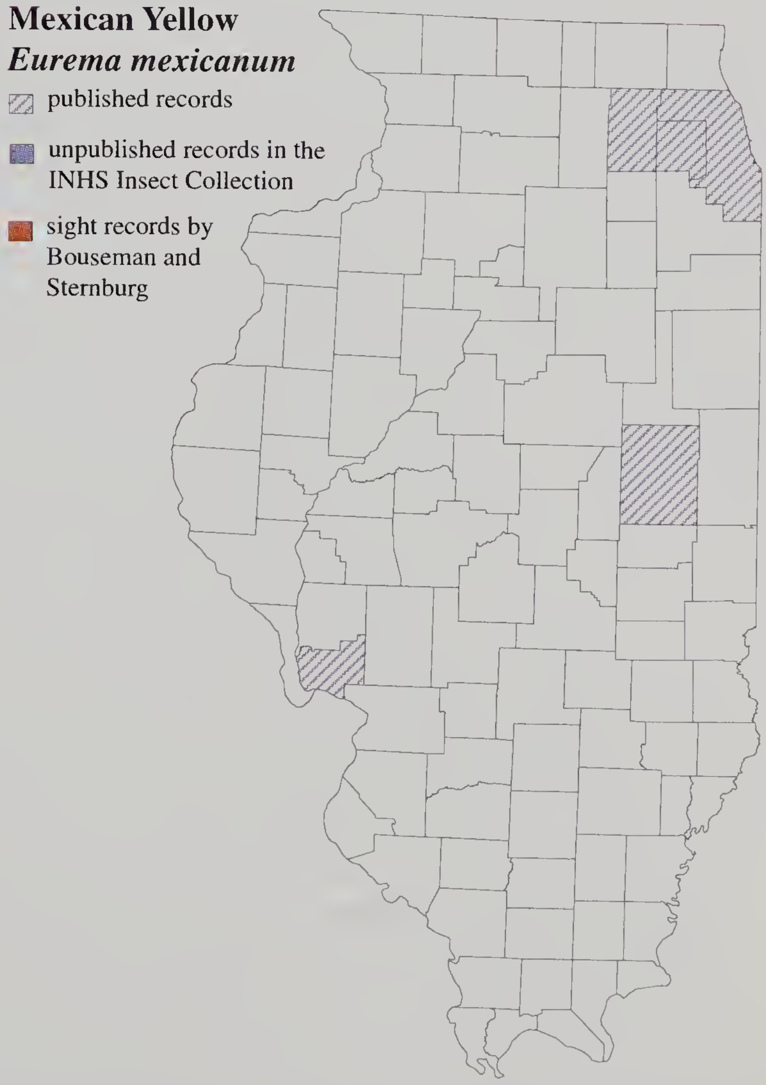
Male, Mexican Yellow, upperside, Cook County, IL.



Mexican Yellow, underside, Du Page County, IL.



Female, Mexican Yellow, upperside, Dallas County, TX.



Mexican Yellow
Eurema mexicanum

▨ published records

🟪 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg

Little Yellow — Pieridae, Coliadinae

Eurema lisa (Boisduval and LeConte)

Description: Wingspan 1–1.6 inches. Yellow upperside with dark borders and scalloped edge. Males and most females yellow, occasional females nearly white. Underside yellow, hindwing lightly spotted, prominent marginal orange spot present.

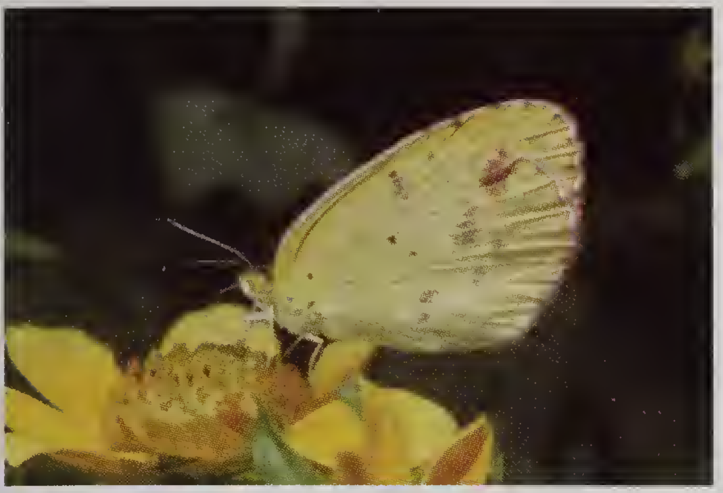
Similar Species: None, although a small Clouded Sulphur in flight might be confused with the Little Yellow.

Habitat: Roadsides, meadows, sandy fields, pastures.

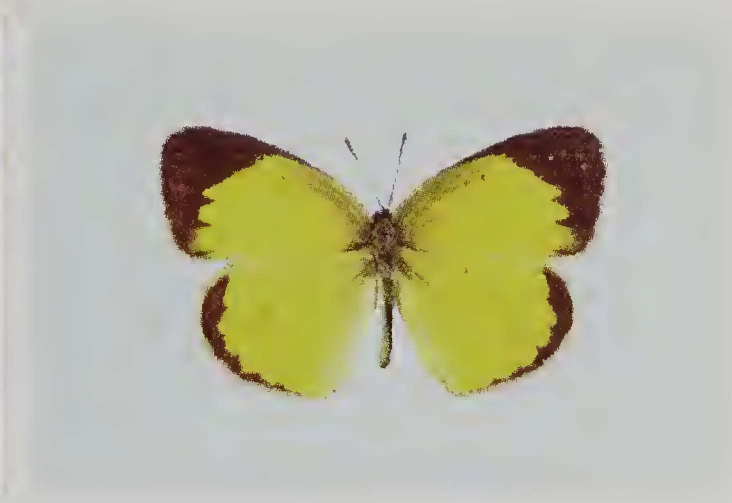
Natural History: Migrant from the south that recolonizes the state each year. Several (1–3) summer generations occur, with populations increasing as the season progresses. Larval hosts are various legumes, especially *Cassia* spp. Adults fly low, often visit damp spots, and nectar on a variety of flowers.

Status: Migrant species that rarely survives an Illinois winter. Common and statewide during the summer and fall.

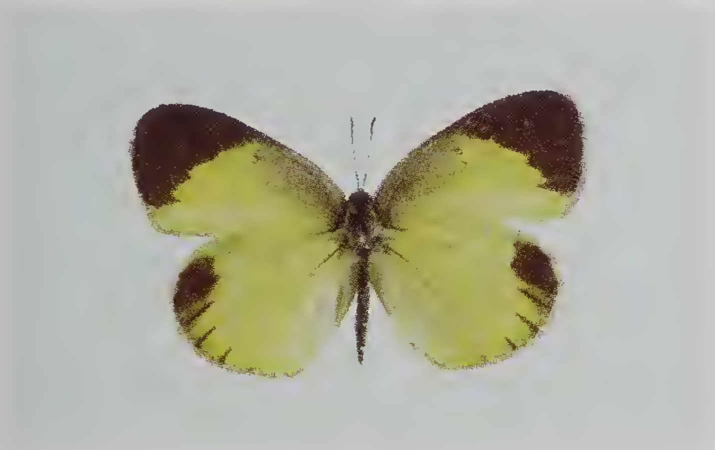
Remarks: The species occurs as a resident in tropical America and the southern U.S. It regularly extends north temporarily to Canada. Large swarms have been seen over the Atlantic; the species occurs in Bermuda, the various islands of the Caribbean, Mexico, and south.



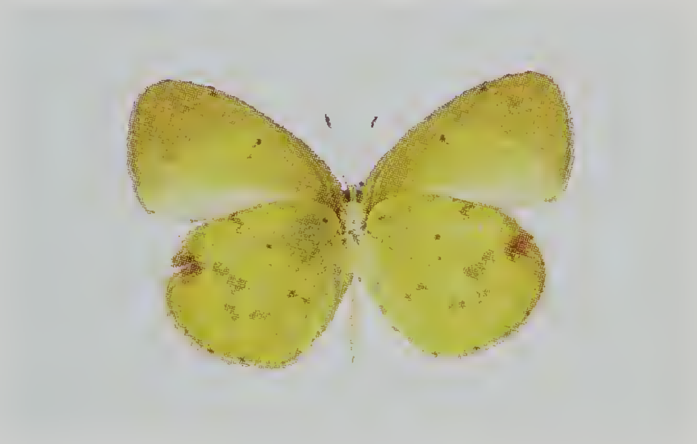
Little Yellow, Champaign County, IL.



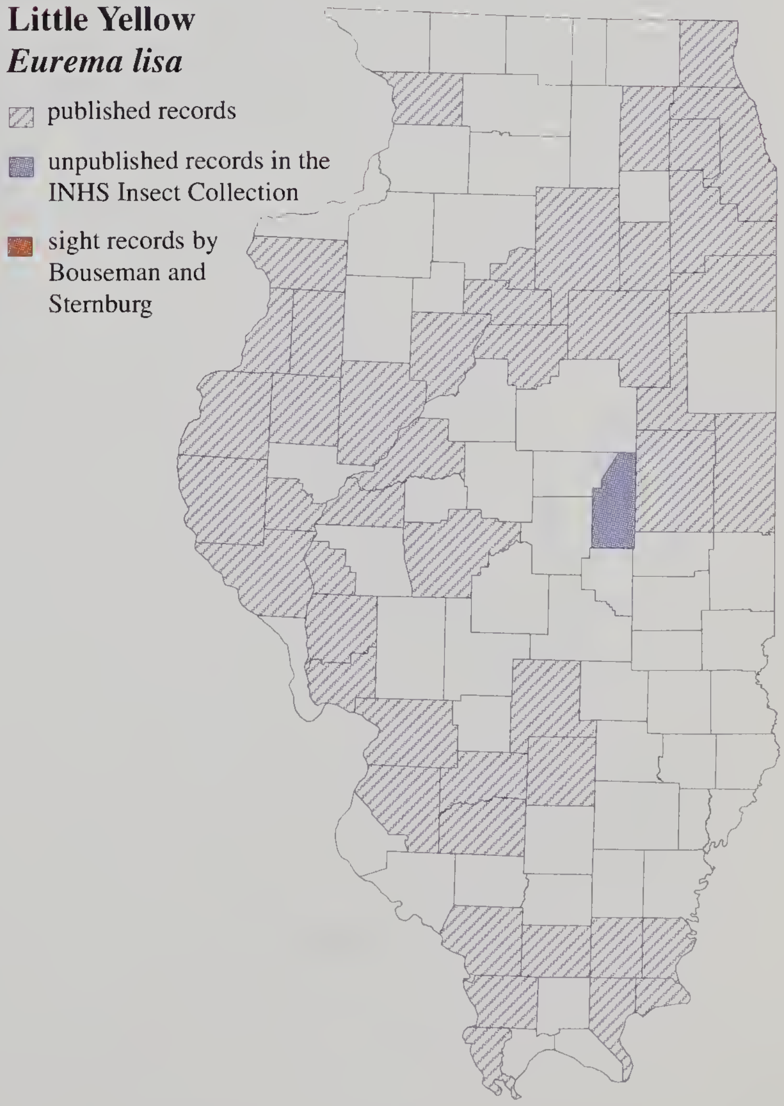
Male, Little Yellow, upperside.



Female, Little Yellow, upperside, Vermilion County, IL.



Female, Little Yellow, underside, Vermilion County, IL.



Little Yellow
Eurema lisa

▨ published records

🟦 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg

Sleepy Orange Sulphur **Pieridae, Coliadinae**

Eurema nicippe (Cramer)

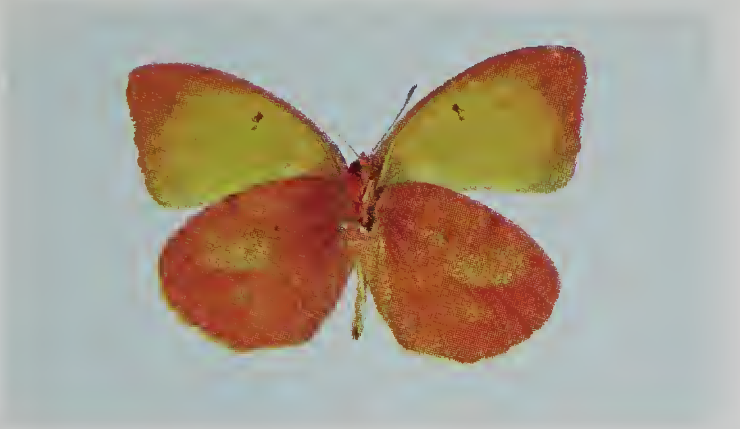
Description: Wingspan 1.25–2.25 in. Sexually dimorphic. Upperside orange with irregular black border. Underside yellow to orange-red, yellow on summer individuals, tending to reddish on fall specimens. Hindwing underside has scattered diffuse dark spots. The dark markings of males have sharp borders, those of females less defined.

Similar Species: None in Illinois.

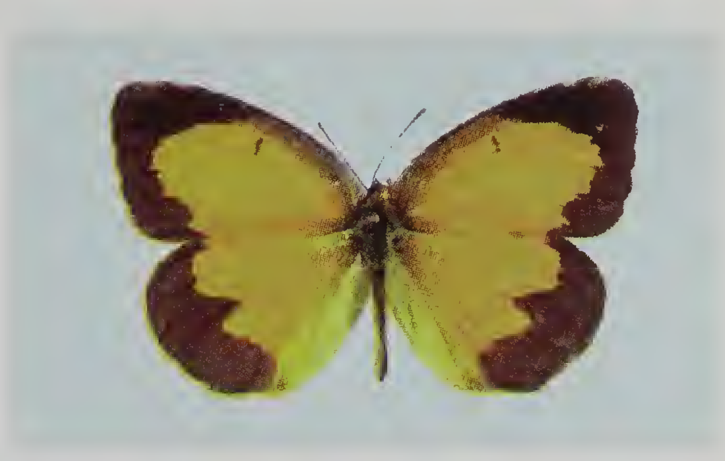
Habitat: Open areas where the larval host (*Cassia* spp.) occurs. Often in damp sites, meadows, roadsides, prairies.

Natural History: There are several generations during the summer months. Larval hosts are species of *Cassia*, and sometimes other legumes. Adults nectar at a variety of flowers. Males patrol in search of females. Their flight can be very erratic when alarmed.

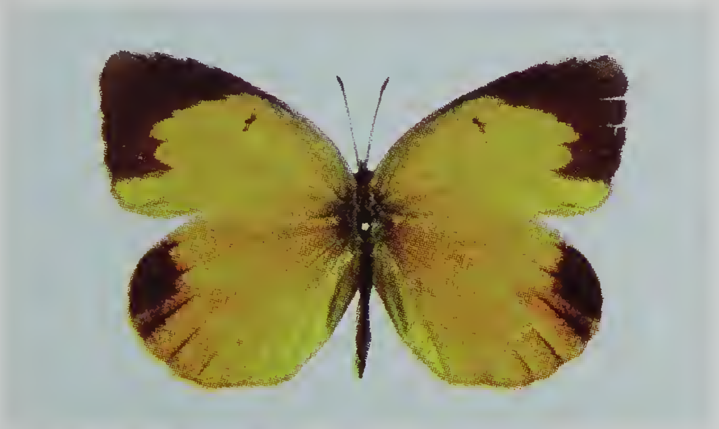
Status: A regular migrant into the state from the South, where it is a permanent resident. In Illinois temporary local populations form anew each year in favorable habitats. It occurs statewide. Often present, but not common. The species rarely survives an Illinois winter. In the South, adults overwinter.



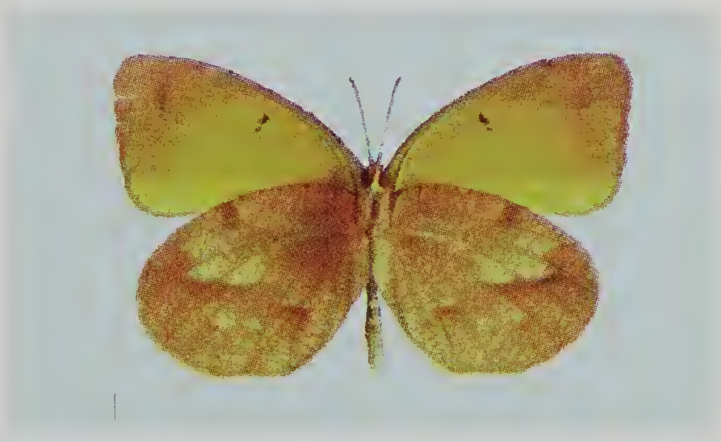
Male Sleepy Orange Sulphur, underside, red form.



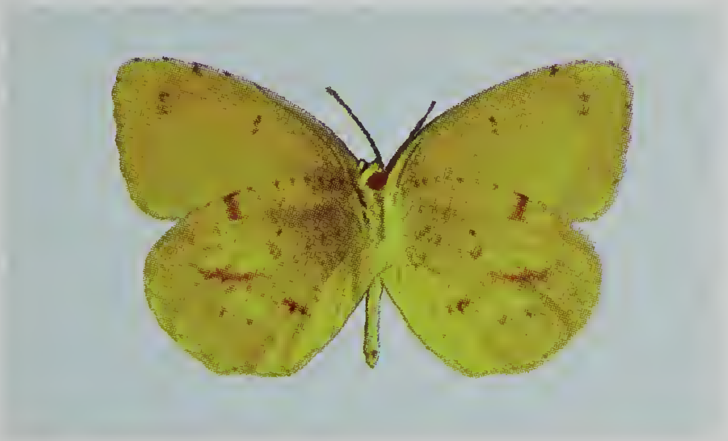
Male, Sleepy Orange Sulphur, Union County, IL.



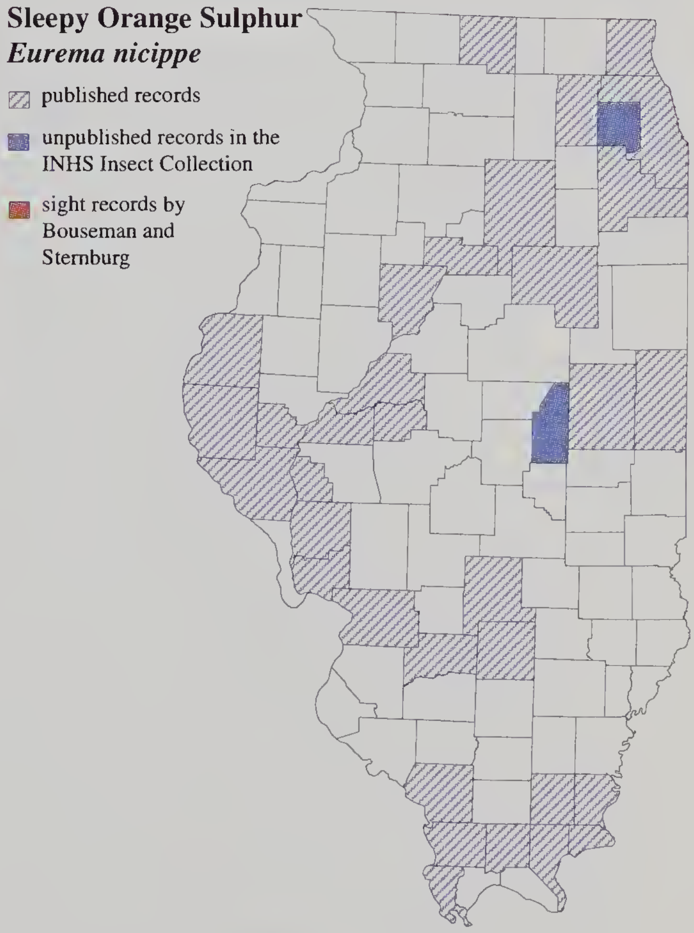
Female, Sleepy Orange Sulphur, upperside, Okaloosa County, FL.



Sleepy Orange Sulphur, underside, yellow form.



Female, Sleepy Orange Sulphur, underside, Okaloosa County, FL.


Sleepy Orange Sulphur
Eurema nicippe
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Dainty Sulphur **Pieridae, Coliadinae**

Nathalis iole Boisduval

Description: Wingspan 0.75–1.1 in. Very small. Sexually dimorphic. Males have the upperside black and yellow, the forewing apex black, the posterior margin with black bar. Females have the black markings more extensive and the hindwing orange. Seasonal differences occur. Summer specimens are mostly yellow on the underside, whereas winter forms are greenish.

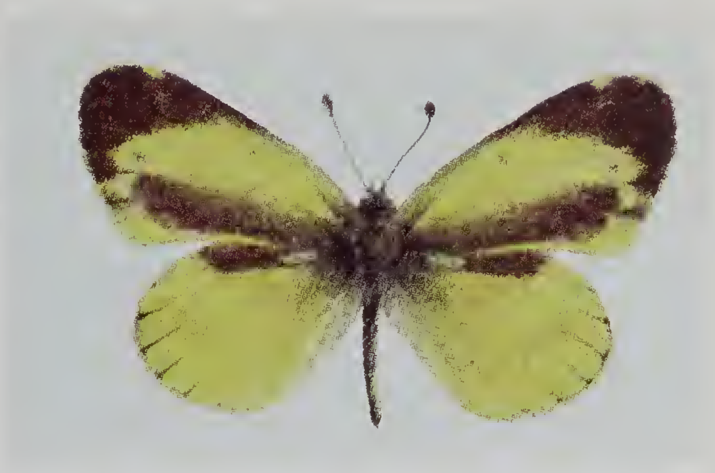
Similar Species: The Little Yellow lacks a black marginal bar.

Habitat: Open fields and roadsides, mowed areas, paths.

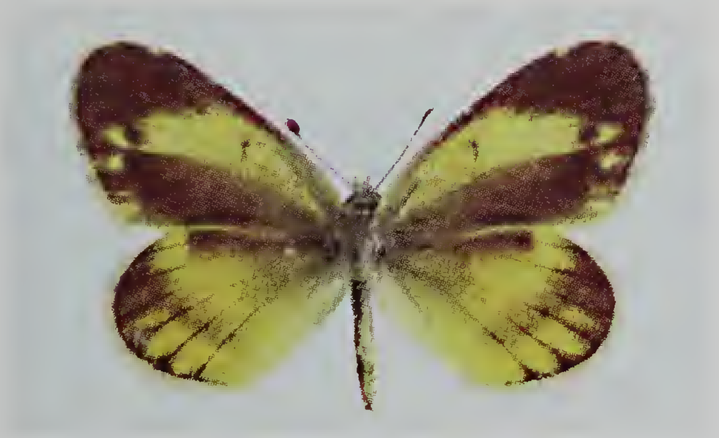
Natural History: Undergoes a series of generations during the summer and early fall, becoming increasingly common as the season progresses. Adults nectar on low flowers; their flight is within inches of the ground, and rather erratic. Adults frequently gather in numbers at moist places. Larvae feed on composites, especially *Bidens* (bur marigold) and *Dyssodia* (fetid marigold). These are unusual larval hosts for pierids.

Status: Summer breeding resident only in Illinois, where it does not survive the winter. The species is a regular migrant into the state from farther south. Its range extends to Colombia and the West Indies.

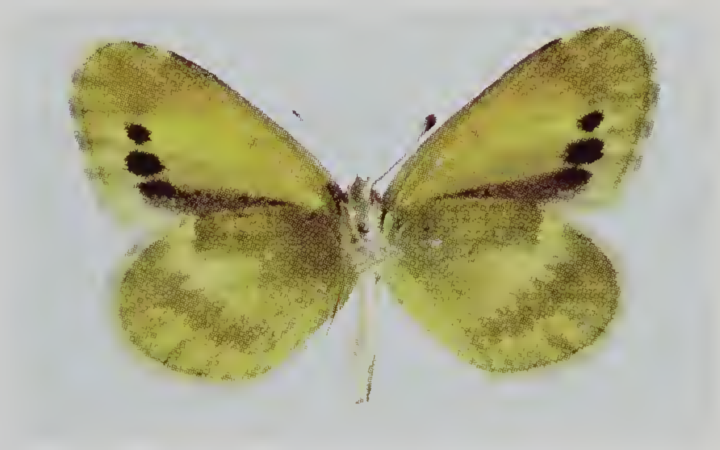
Dainty Sulphur, Wayne County, MO.



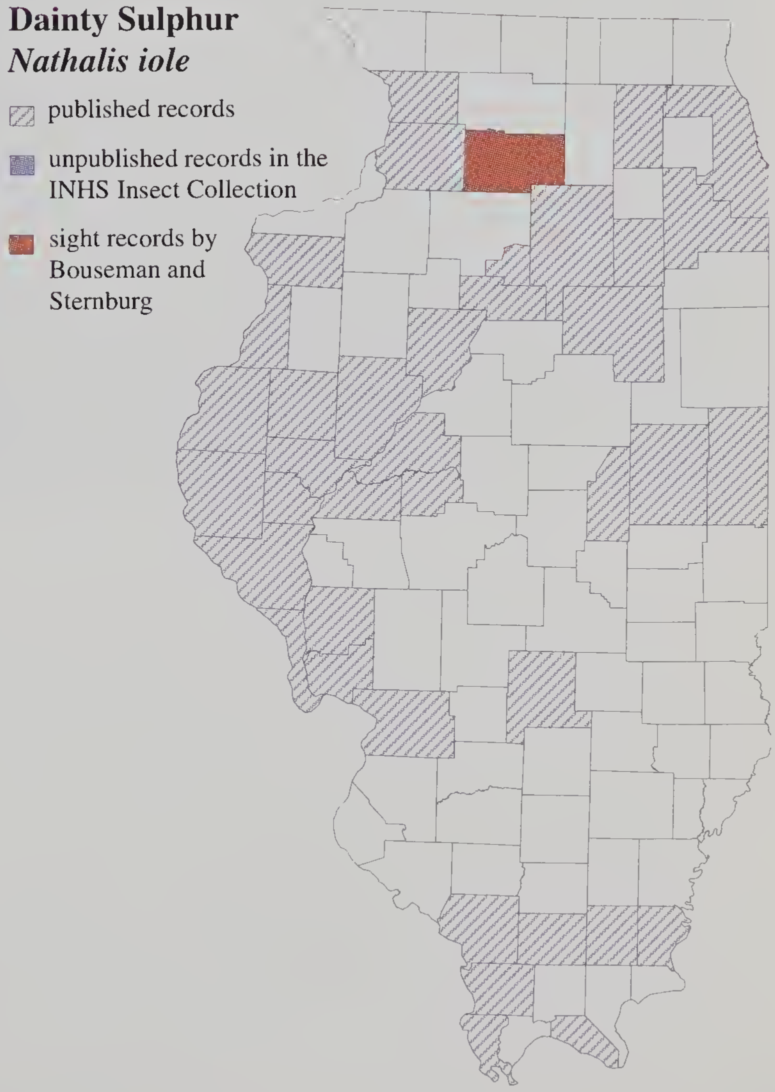
Male, Dainty Sulphur, upperside, Mason County, IL.



Female, Dainty Sulphur, upperside, Union County, IL.

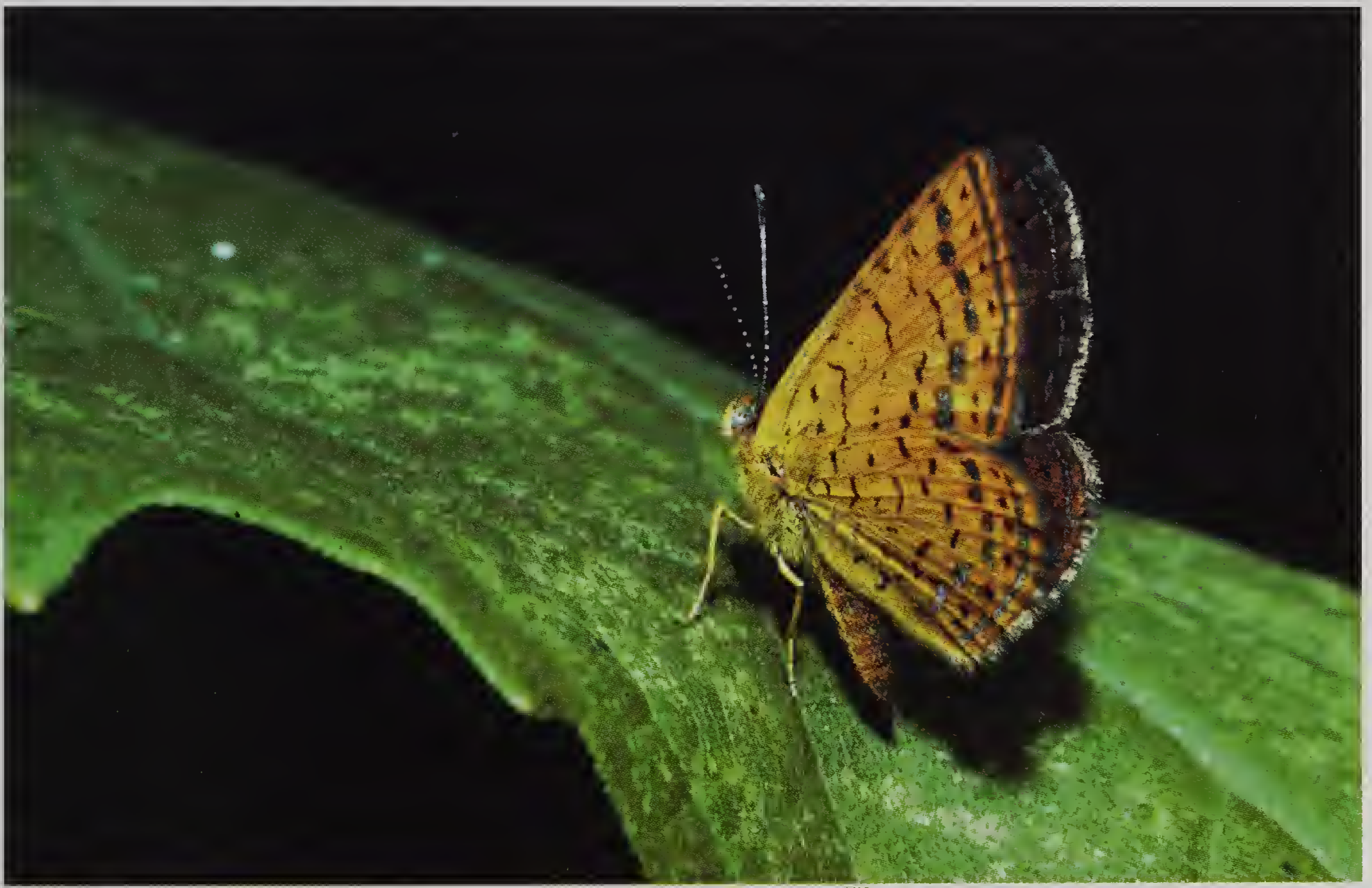


Female, Dainty Sulphur, underside, Union County, IL.


Dainty Sulphur
Nathalis iole
▨ published records
▩ unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Family Riodinidae: Metalmarks

Metalmarks are mostly tropical insects, with a few entering the temperate zone. The Neotropics are especially rich in species. There are three species in the eastern United States, one of which occurs sparingly in Illinois. Metalmark males have the front legs reduced; the females use all six legs in walking and perching. The name "Metalmark" refers to the metallic markings on many of the species. Some larvae have secretory glands that produce substances attractive to ants. The location of the glands differs from that of the lycaenids and the two families are probably not closely related. *Calephelis* spp. larvae do not attract ants, but many of the tropical species do.



Male, Swamp Metalmark perching, Vermilion County, IL.

Swamp Metalmark **Riodinidae, Riodininae**

Calephelis mutica McAlpine

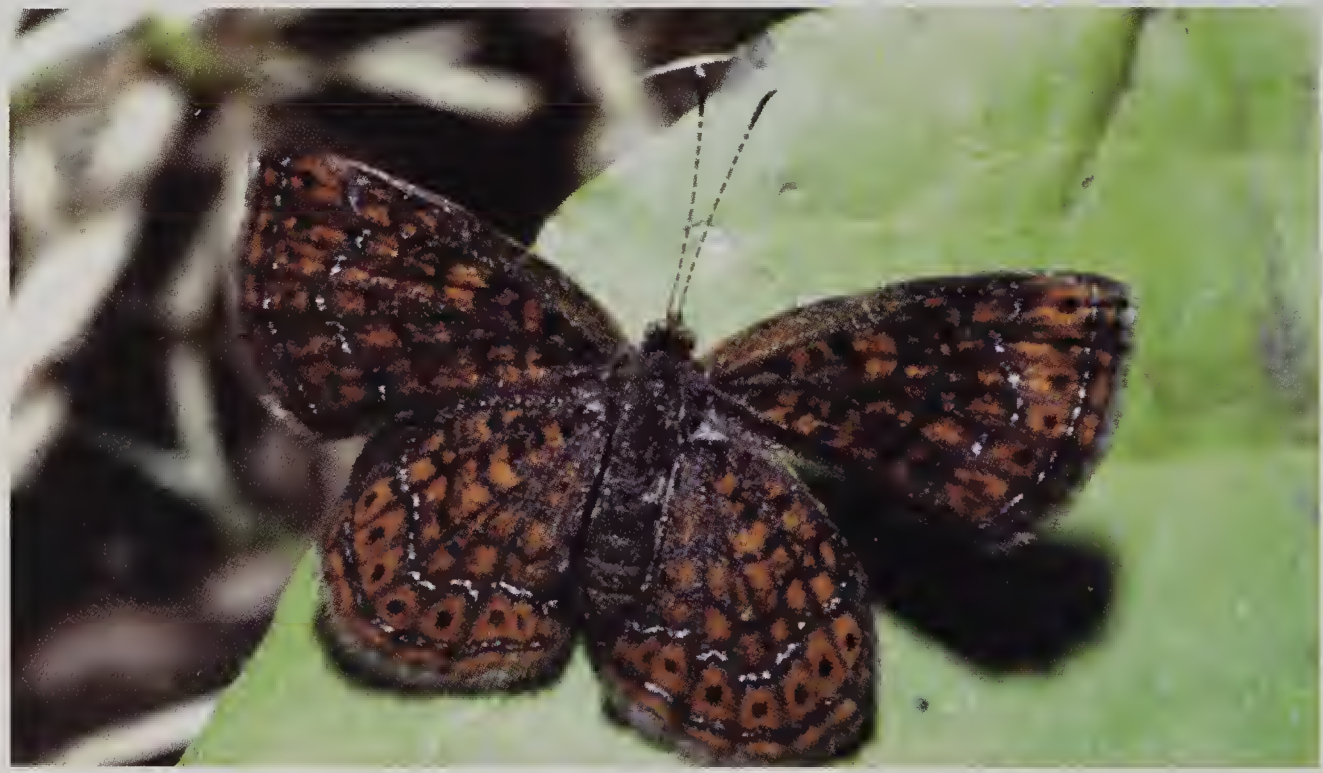
Description: Wingspan 1–1.3 in. Sexes similar. Upperside fairly even red-brown color with scattered lines, and a band of blue scales extending from the front margin to the inner margin of the hindwing. Underside light yellow-brown with black spots. The apex of the forewing is pointed.

Similar Species: None in Illinois. The Northern Metalmark, which occurs just over the border in Indiana and Missouri (but not yet reported in Illinois), has the ground color with a median dark area, and the forewing is more rounded.

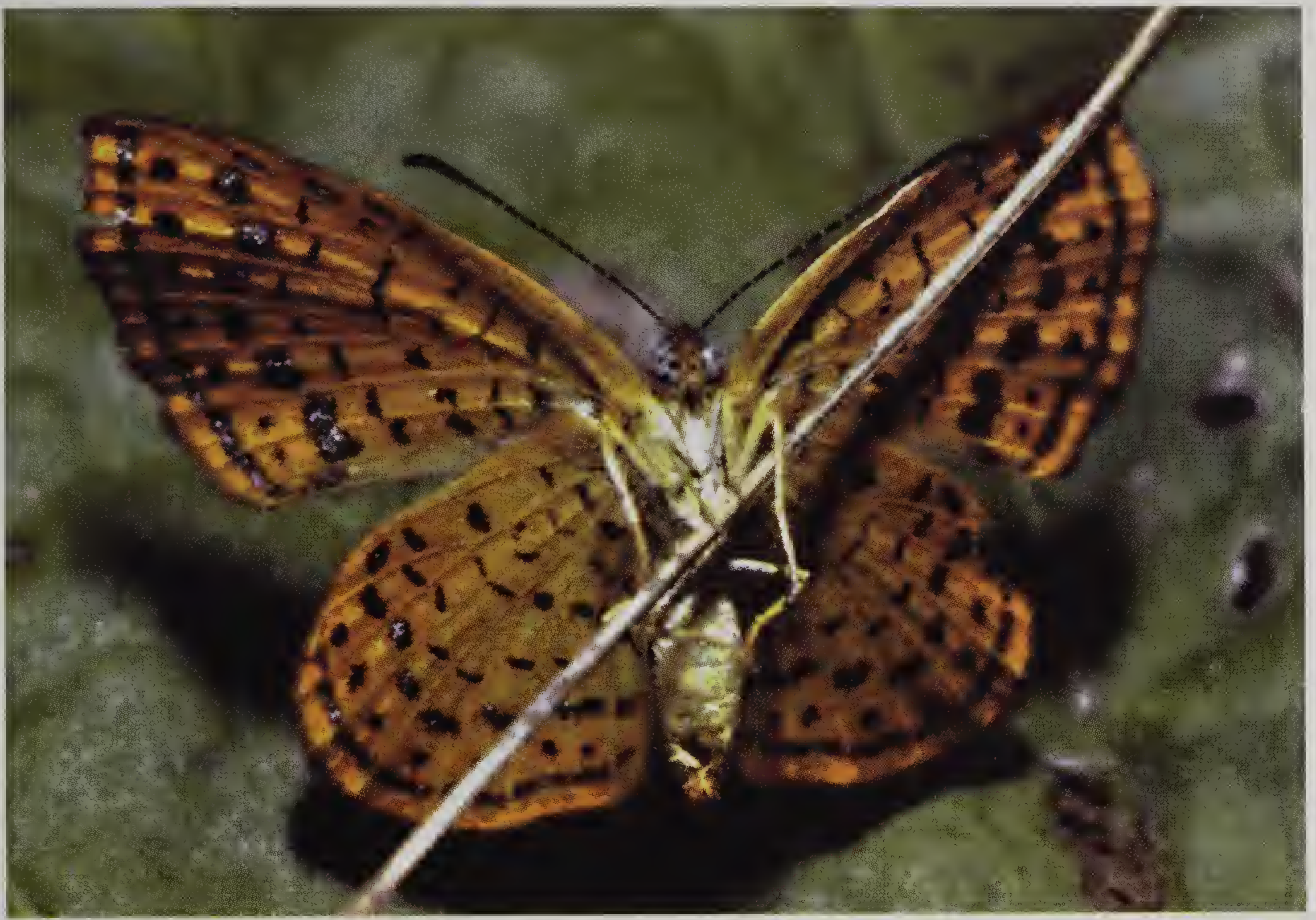
Habitat: Restricted to wet areas where the prime larval host, swamp thistle (*Cirsium muticum*), occurs. It is also reported to feed on tall thistle (*Cirsium altissimum*), a plant of drier woods edges.

Natural History: The species is bivoltine in Illinois, the first generation in July, and the second in September. Overwinters as a partly grown larva, below the winter leaves of the host plant. Larvae feed mostly on the ground rosette leaves of the thistles. Adults are found in populations restricted to wet areas and bogs or marshes. The males actively patrol in search of females. Eggs are laid singly on the underside of leaves of young plants. Adults nectar on plants found nearby, including various composites. Adults in flight remain close to the ground. They can be confused when flying with the Pearl Crescent.

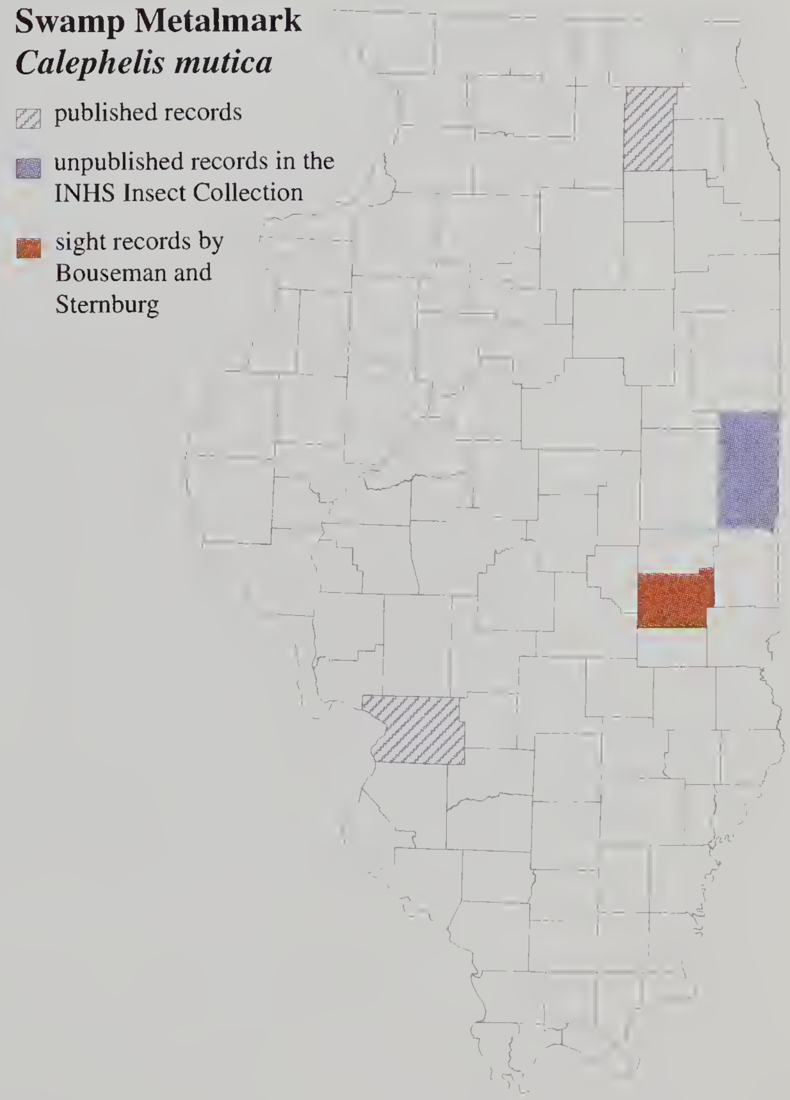
Status: Known in Illinois from only a few sites. Now listed as endangered.



Male, Swamp Metalmark, Vermilion County, IL. State Endangered.



Swamp Metalmark, Vermilion County, IL. State Endangered.


Swamp Metalmark
Calephelis mutica
▨ published records
■ unpublished records in the INHS Insect Collection
■ sight records by Bouseman and Sternburg

Northern Metalmark — Riodinidae, Riodininae

Calephelis borealis (Grote and Robinson)

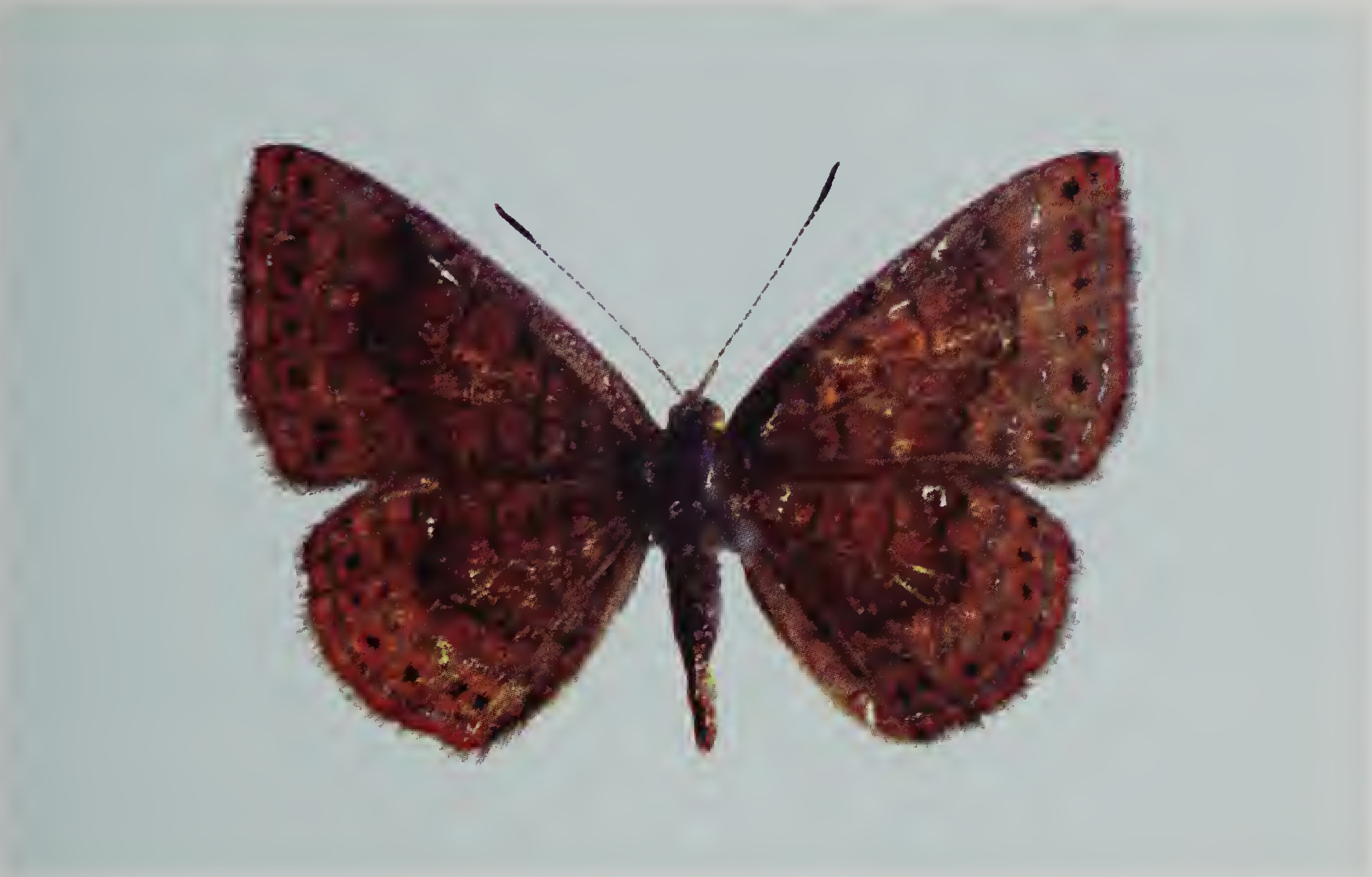
Description: Wingspan 1.1–1.25 in. Sexes similar. Upperside dull brown with an indistinct central darker area. Fringes checkered. Metallic line on upperside more or less continuous. Underside with reddish flush. Forewing apex rounded.

Similar Species: Swamp Metalmark has more yellowish underside, lacks diffuse dark area above, and frontwing apex is pointed in males.

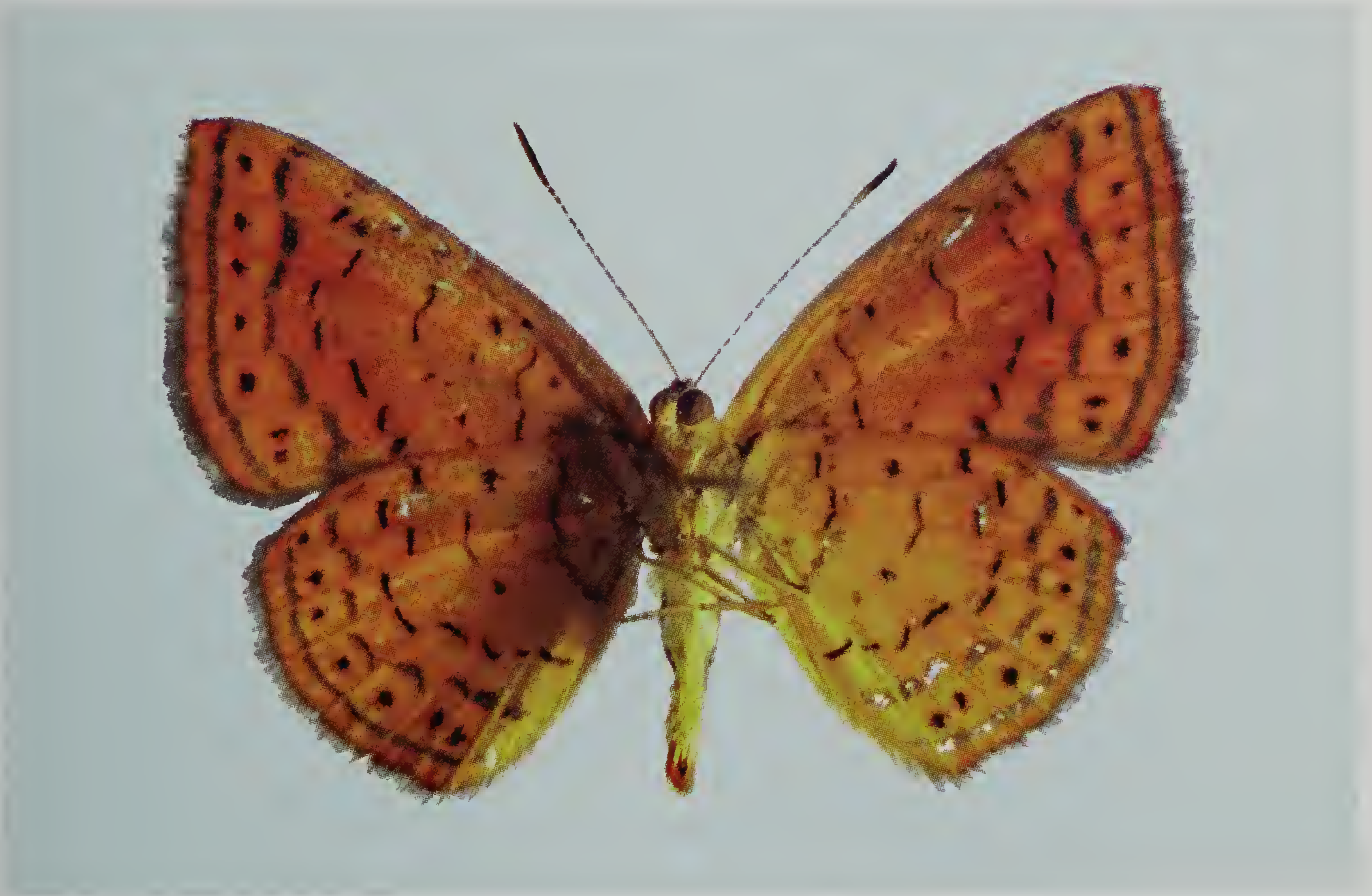
Habitat: Open woods, often near dry areas over limestone or shale. Does not occur in bogs or marshes, but may be near streams with adjacent barren areas.

Natural History: Univoltine, with adults present in late June and July. Eggs are laid singly on the leaves of the larval host, usually on the underside. The larval host is roundleaf ragwort (*Senecio obovatus*). Overwinters as partially grown larvae in the litter below the larval host. Adults often perch with the wings wide open. When disturbed they may move to the underside of a leaf, with wings open. Adults nectar at butterfly weed, many composites, and sweet clover.

Status: Not recorded from Illinois, but its known range comes within a few miles of the Illinois-Indiana border and it also occurs in Missouri. The larval host plant occurs in Illinois.



Male, Northern Metalmark, upperside, Sussex County, NJ.



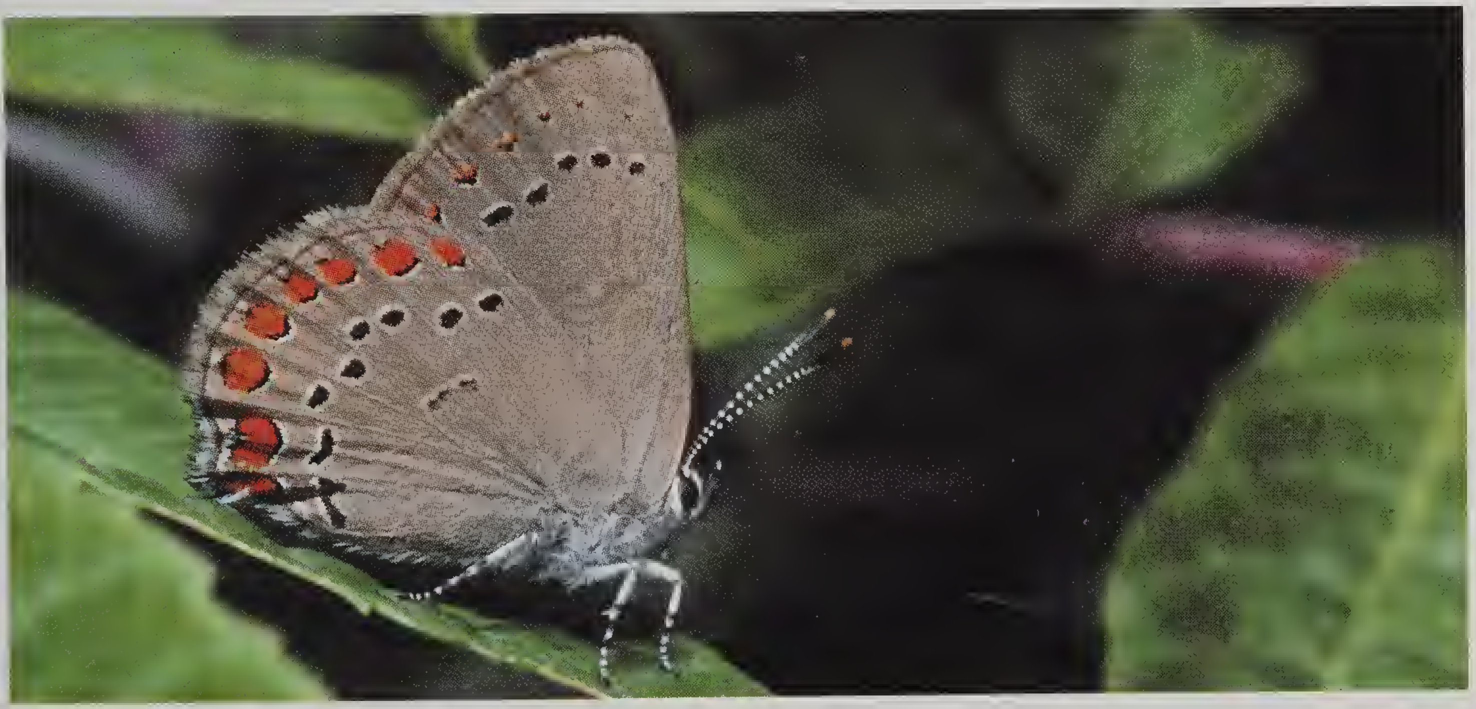
Male, Northern Metalmark, underside.

Family Lycaenidae: Hairstreaks, Coppers, Blues, Harvesters

Collectively called the gossamer-winged butterflies, the family is divided into the hairstreaks, coppers, blues, and harvesters. As a group they are all small butterflies, sometimes with brilliant iridescent colors, and with or without hindwing tails. Blues are patrolling species, as are coppers to a lesser extent. Most coppers and hairstreaks are perching species. Eggs are laid singly on the larval hosts, where the larvae feed either on the leaves or on the flowers and seed pods. One species, the Harvester, has larvae that are predaceous on woolly aphids. Many larvae have special glands, which produce substances attractive to ants. In a few cases, the larvae are taken into the ants' nests, but more often the larvae are visited and tended while on the host plant. Pupae of lycaenids are fastened to a leaf or to other objects, often near the ground, by a silk girdle and a button of silk that is engaged by the cremaster.

Subfamily Theclinae: Hairstreaks

As a group, the hairstreaks are fast fliers, often perching only to dart out at passing insects, and then returning to or near the same perching site. Males perch, waiting for females. In the tropics, many hairstreaks are bright blue and iridescent. Only a few of our northern species have this iridescence, with most some shade of gray, brown, or even black. The underside fine lines, like pencil striping, are typical and are responsible for the name "hairstreak." The hindwings often are tailed, and adjacent to the tails are orange and blue spots, vaguely suggesting an insect head, with the tails as the antennae. Predators often mistake this false head for the real head and strike it to capture the butterfly, which then can escape with only the loss of a bit of wing. Hairstreaks are avid visitors to flowers, especially New Jersey tea, dogbane, milkweeds, and various composites. There are 16 Illinois species.



Female, Coral Hairstreak perching, Iroquois County, IL.

Coral Hairstreak — Lycaenidae, Theclinae

Satyrium titus (Fabricius)

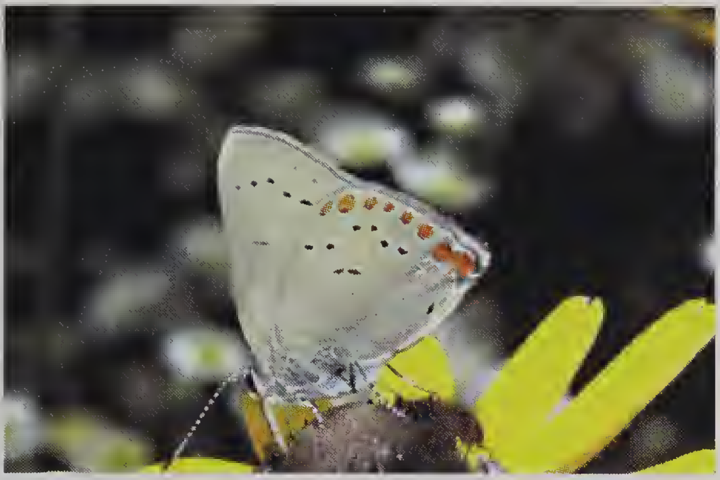
Description: Wingspan 1.0–1.5 in. A tailless hairstreak. Sexes similar in color, but different in wing shape. Females have broader and more-rounded wings. Hindwings of both sexes have a band of coral red spots on the outer margins. There is also a postmedian row of eight black dashes, each bordered with white.

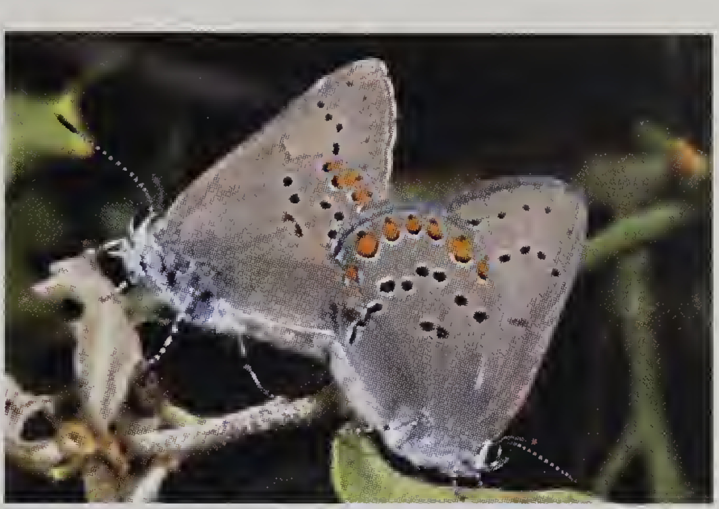
Similar Species: None.

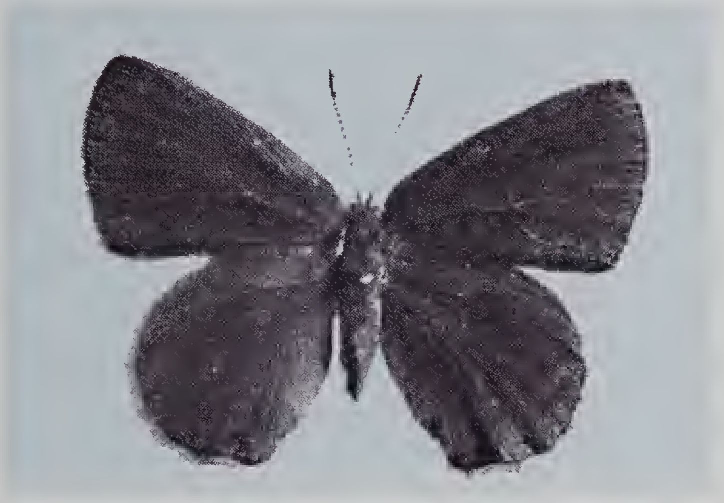
Habitat: Open woods, fields near woods, along streams and paths. Prairies, pastures.

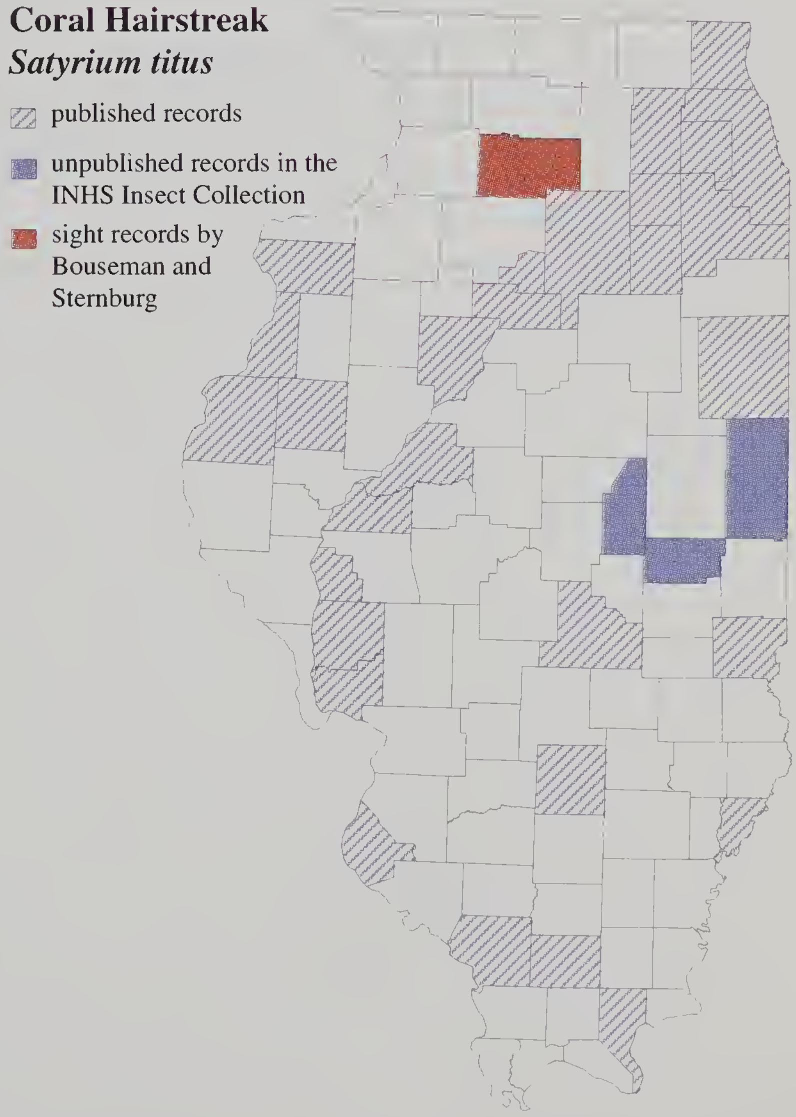
Natural History: One generation flies from early June through July in the north, earlier in the south. Males are territorial, perching at stations where they can fly out to intercept females. Eggs are laid on wild cherries and plums (*Prunus* spp.). Larvae feed on the leaves, often tended by ants. The species overwinters in the egg stage. Adults nectar avidly on New Jersey tea and orange milkweed. Other milkweeds and dogbanes are also visited.

Status: At Sand Ridge State Forest in Mason County, Illinois, the Coral Hairstreak is at times the most common hairstreak present. It may literally swarm over the flowers of orange milkweeds. In most regions, the species is uncommon and local.


Male, Coral Hairstreak, Mason County, IL


Mated pair (male left, female right), Coral Hairstreak, Mason County, IL.


Female, Coral Hairstreak, upperside, Piatt County, IL.


Coral Hairstreak
Satyrium titus
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Striped Hairstreak — Lycaenidae, Theclinae

Satyrium liparops strigosum (Harris)

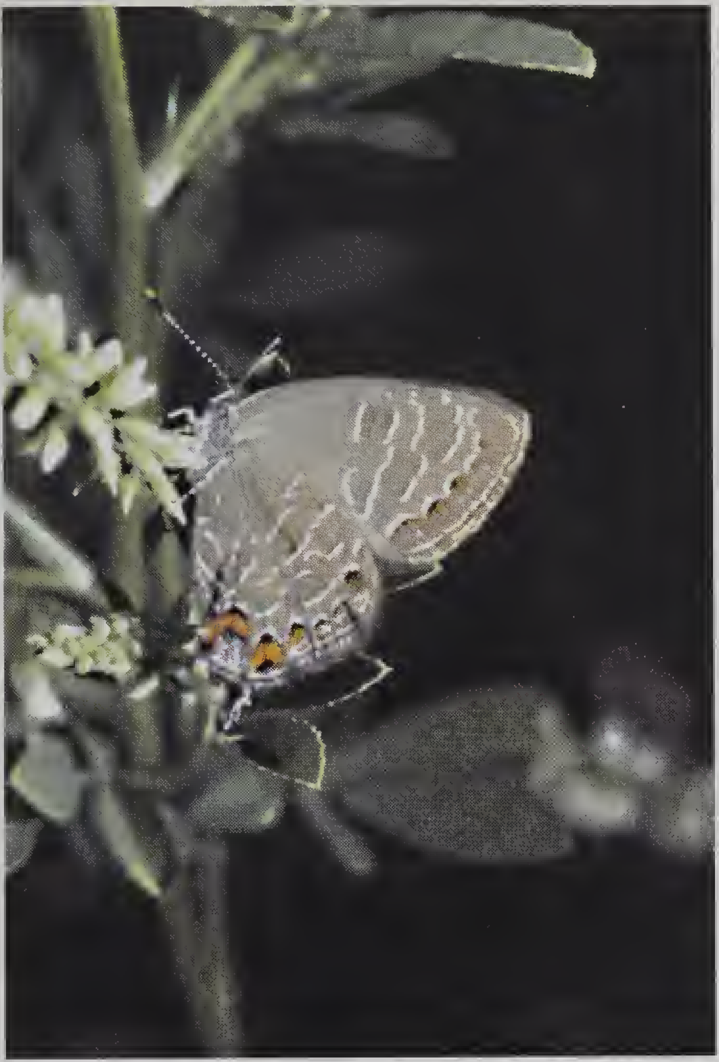
Description: Wingspan 1.0–1.4 in. Tailed. Sexes similar. Upperside brown, sometimes with orange patches. Underside with the median and postmedian rows of spots expanded, with the white lines spaced widely. A row of marginal orange spots is present on the hindwing and there is an orange-capped blue tailspot.

Similar Species: The widely separated white lines distinguish this species from all other Illinois hairstreaks.

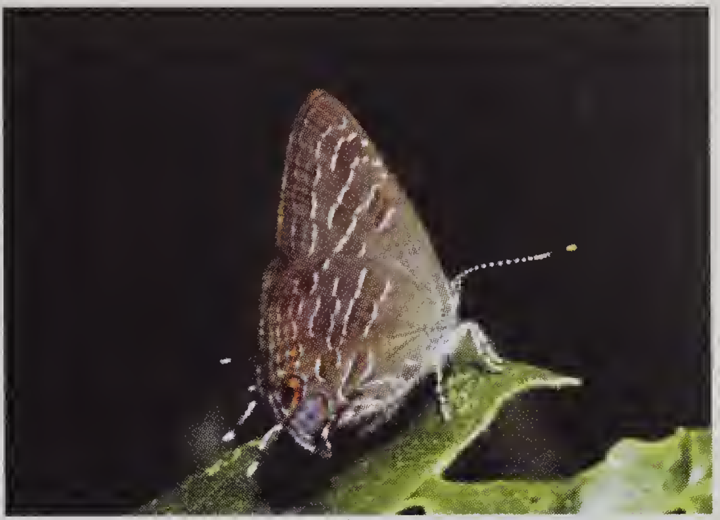
Habitat: Wooded areas, glades, edges, prairie groves, stream margins, brushy swamps.

Natural History: Univoltine, adults in June and July. The species is polyphagous with larvae feeding on the buds, fruit, and leaves of a variety of trees, especially wild plums (*Prunus* spp.), apple (*Malus pumila*), hawthornes (*Crataegus* spp.), Juneberries (*Amelanchier* spp.), blackberries (*Rubus* spp.), blueberries (*Vaccinium* spp.), willows (*Salix* spp.), and oaks (*Quercus* spp.). Eggs are laid on the food plant where they overwinter and hatch in the spring. The species often occurs with the common Banded Hairstreak. The usually uncommon to scarce Striped Hairstreak is consequently often overlooked. Adults nectar on the same flowers as other *Satyrium* species. They are fond of New Jersey tea, orange milkweed, and white sweet clover.

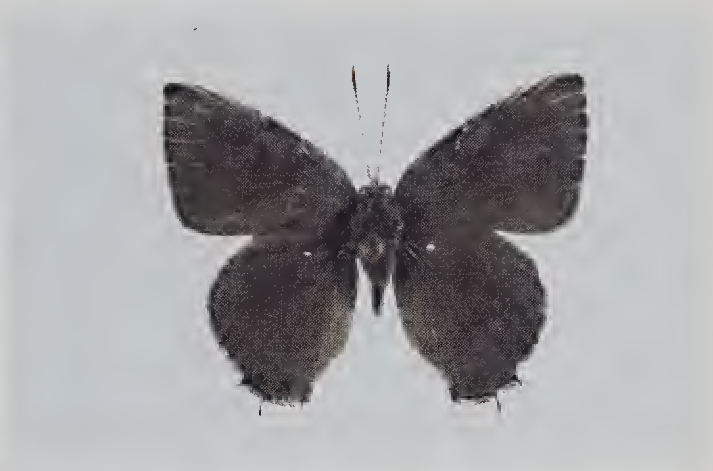
Status: Statewide in local populations. Never very common, usually scarce to rare.



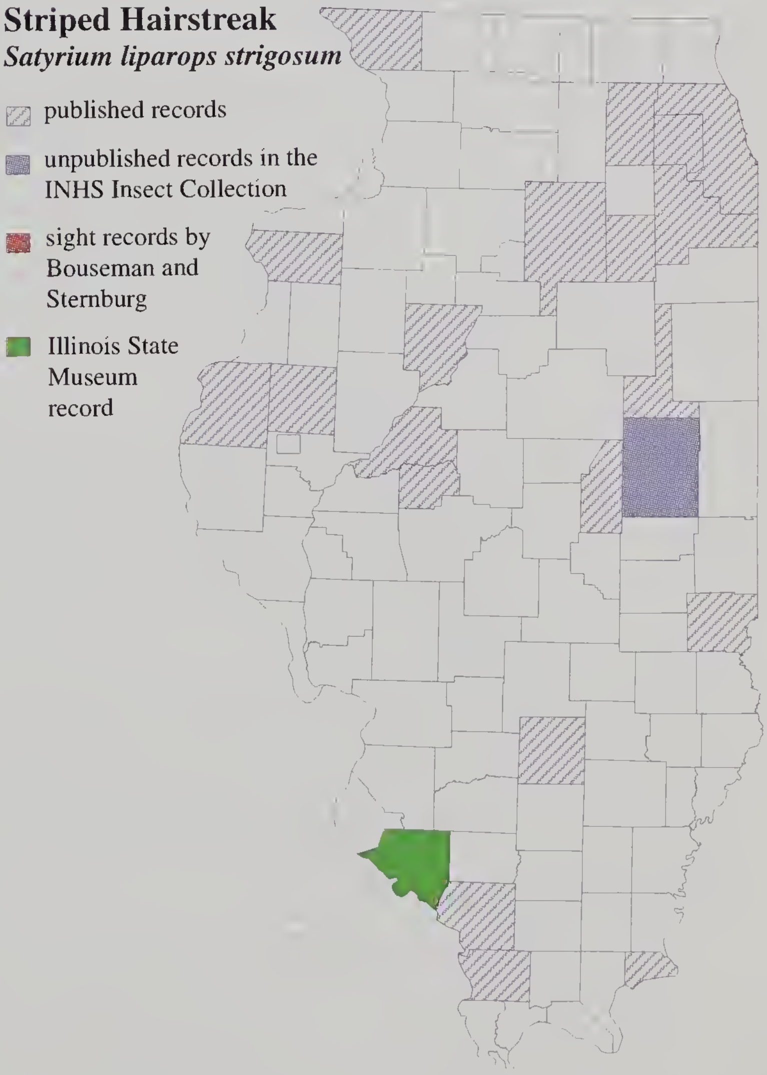
Striped Hairstreak, Piatt County, IL.



Striped Hairstreak, Piatt County, IL.



Male, Striped Hairstreak, upperside, Piatt County, IL.


Striped Hairstreak
Satyrium liparops strigosum
▨ published records
🟪 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg
🟩 Illinois State Museum record

Banded Hairstreak — Lycaenidae, Theclinae

Satyrium calanus falacer (Godart)

Description: Wingspan 1.0–1.25 in. Sexes similar, with males darker on the underside than females. Tails are present. Postmedian row of spots margined with white lines (the hairstreaking), the outer lines prominent, the inner lines weak to absent. The margins of the lines are close to but do not encircle the spots. The spots of females are broader than those of the males. The blue tailspot is not capped with orange, the adjacent orange tailspot is capped by a black lunule.

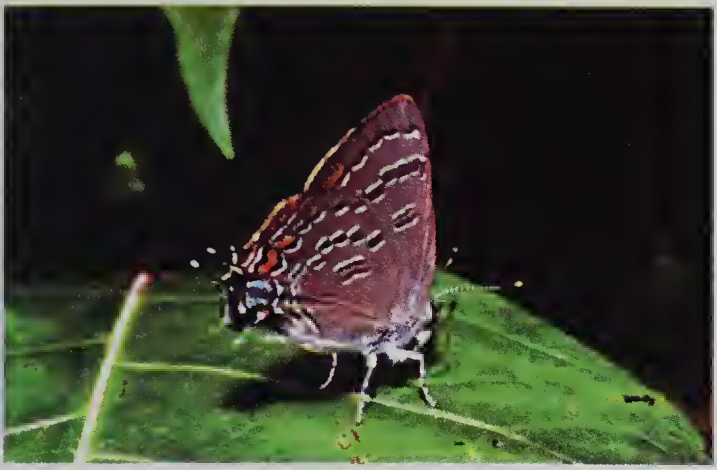
Similar Species: The Hickory Hairstreak is confusingly similar, and reliable identification may require dissection of the genitalia. Subtle differences do exist. Hickory Hairstreak has blue tailspot larger, touching postmedian band or nearly so. Its forewing postmedian band usually has white streaks on the inner margin. Sight records without confirmation by collecting are probably not to be trusted.

Habitat: Clearings in wooded areas and edges of forests. City parks if oaks are present. Open fields near forests where nectar is available.

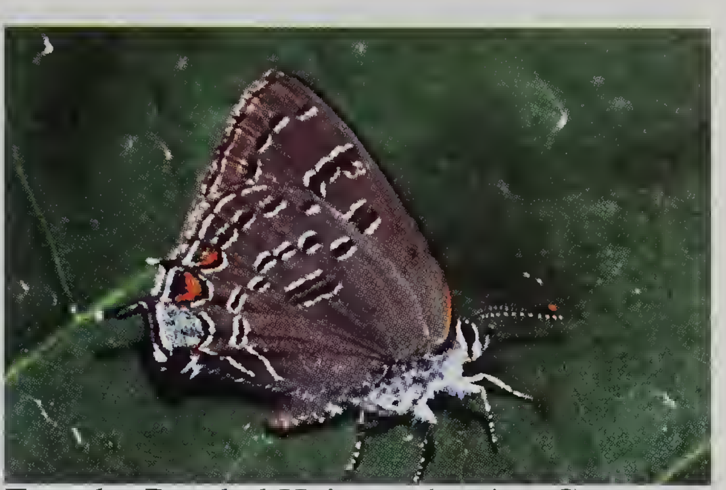
Natural History: Banded Hairstreaks are univoltine, with a flight season from early June through July. Overwintering eggs hatch in the spring. The larvae feed on the catkins and young leaves of the hosts, usually oaks (*Quercus* spp.), but also walnut (*Juglans nigra)* and hickories (*Carya* spp.). Males perch on low branches to wait for passing females. Females lay their eggs on or near buds of the host plant. Adults nectar at flowers of many kinds, favoring New Jersey tea, dogbane, milkweeds, yarrow, and sweet clover—all plants with short nectar tubes.

Status: The Banded Hairstreak occurs statewide, scattered locally where suitable habitat exists. It is the most common of Illinois hairstreaks. In some years it may be locally abundant, in others nearly absent.

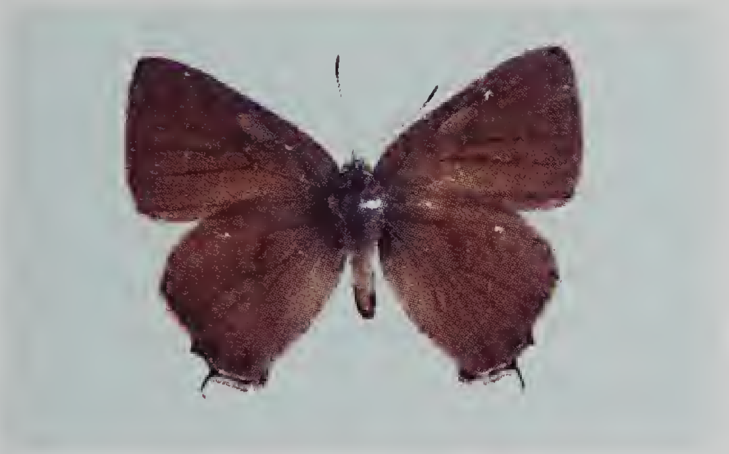
Remarks: One way to find this and other related hairstreaks is to search for New Jersey tea in bloom. If hairstreaks are in the area they will eventually nectar there, sometimes in great numbers. Often several species are present in synchrony, including Edwards', Hickory, and Striped Hairstreaks, all jostling one another for space.



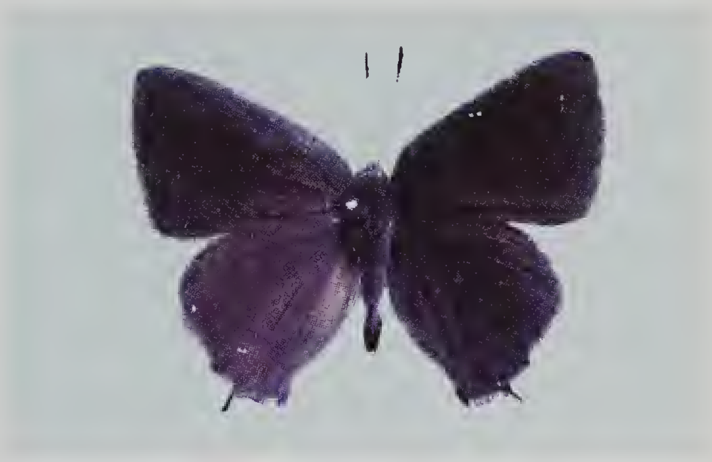
Male, Banded Hairstreak, Piatt County, IL.



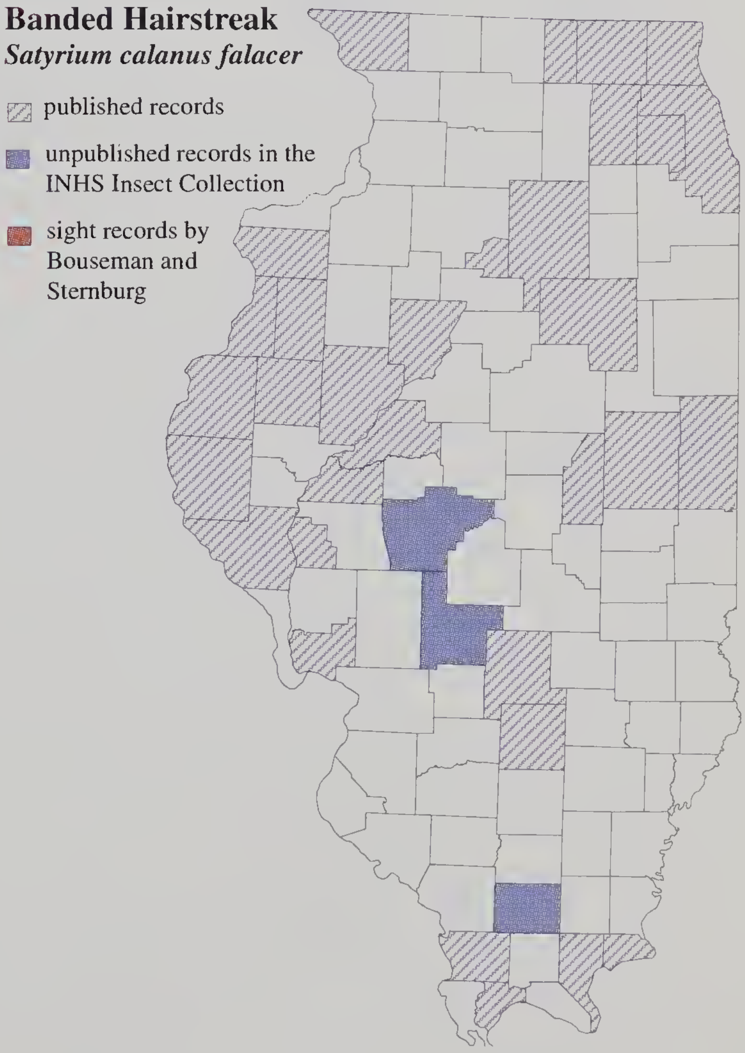
Female, Banded Hairstreak, Piatt County, IL.



Male, Banded Hairstreak, upperside, McHenry County, IL.



Female, Banded Hairstreak, upperside, Piatt County, IL.


Banded Hairstreak
Satyrium calanus falacer
▨ published records
■ unpublished records in the INHS Insect Collection
■ sight records by Bouseman and Sternburg

Hickory Hairstreak **Lycaenidae, Theclinae**

Satyrium caryaevorum (McDunnough)

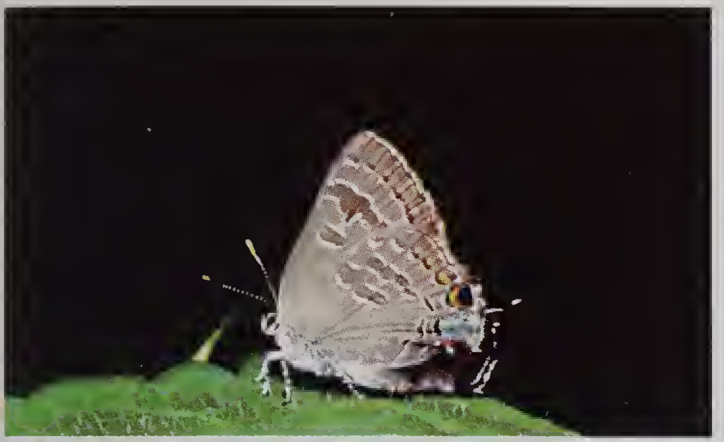
Description: Wingspan 1.0–1.25 in. Sexes similar. Tailed. The postmedian spots on the underside are bordered with white on both the outer and inner sides. On the hindwing the postmedian spots are offset. The blue tailspot extends inward to touch or almost touch the postmedian spots.

Similar Species: See Banded Hairstreak discussion.

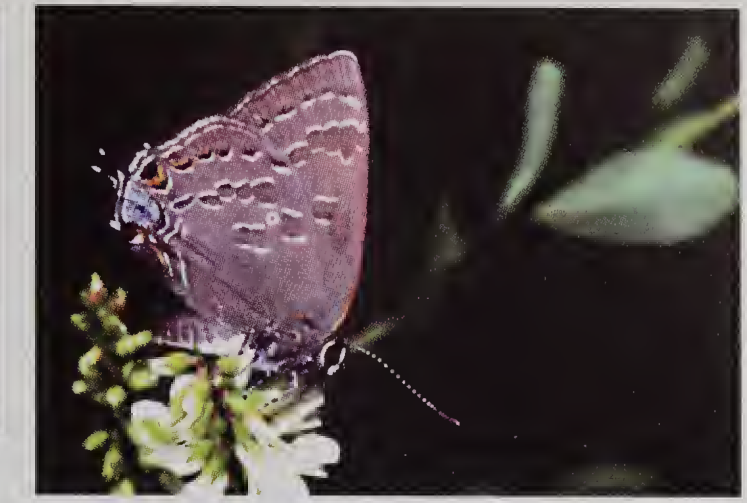
Habitat: Clearings in wooded areas and forest edges. Open fields near hickories, and where nectar is available.

Natural History: Univoltine, flight from mid-June through July. Males often perch high above ground, in contrast to the Banded Hairstreak. Females lay eggs on or near the buds of hickories (*Carya* spp.), the preferred larval host. The species overwinters in the egg stage. Adults nectar at milkweeds, dogbane, New Jersey tea, sweet clover, and other plants. The species is often found with the Banded Hairstreak but is usually less numerous.

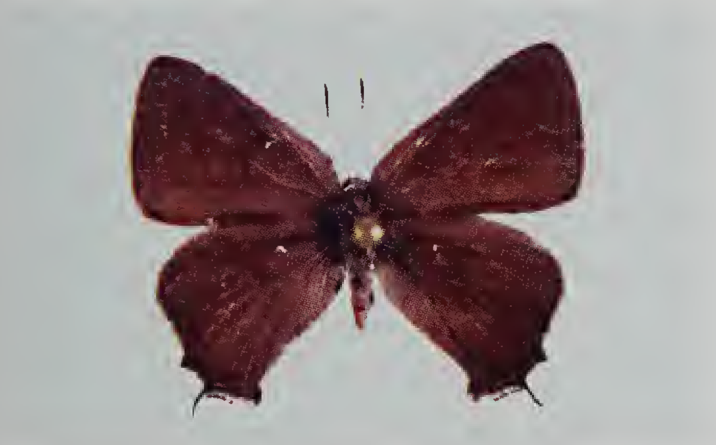
Status: Uncommon and local.



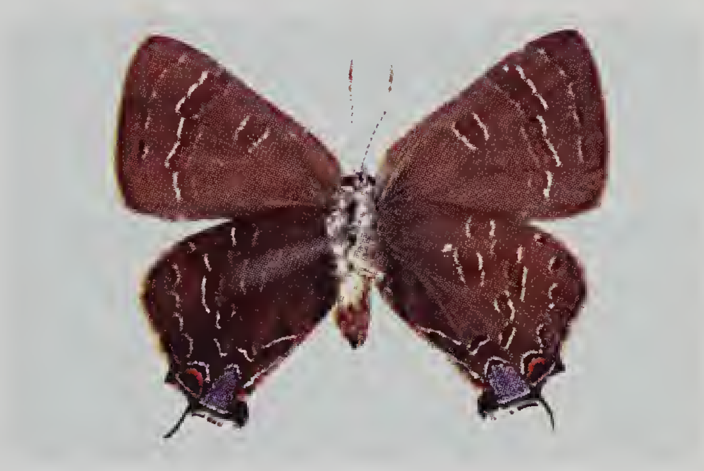
Hickory Hairstreak, Piatt County, IL.



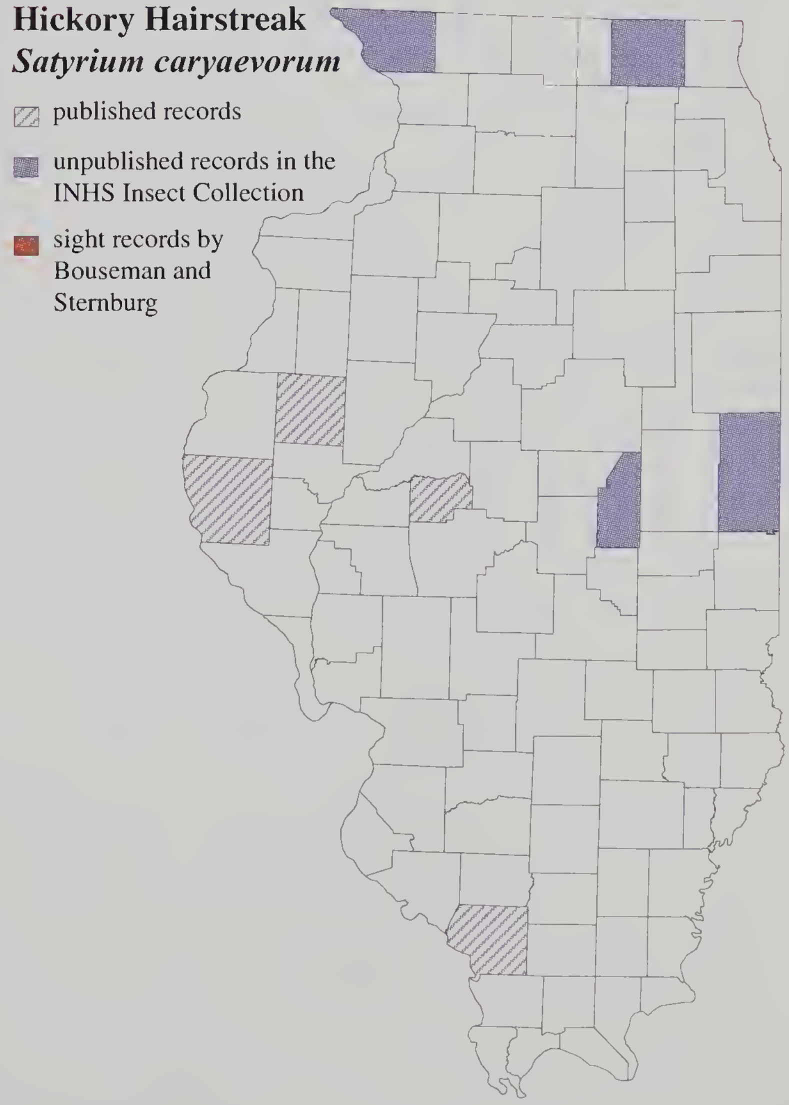
Hickory Hairstreak, Piatt County, IL.



Female, Hickory Hairstreak, upperside, Piatt County, IL.



Female, Hickory Hairstreak, underside, Piatt County, IL.



Hickory Hairstreak
Satyrium caryaevorum

- ▨ published records
- 🟪 unpublished records in the INHS Insect Collection
- 🟥 sight records by Bouseman and Sternburg

Edwards' Hairstreak — Lycaenidae, Theclinae

Satyrium edwardsii (Grote and Robinson)

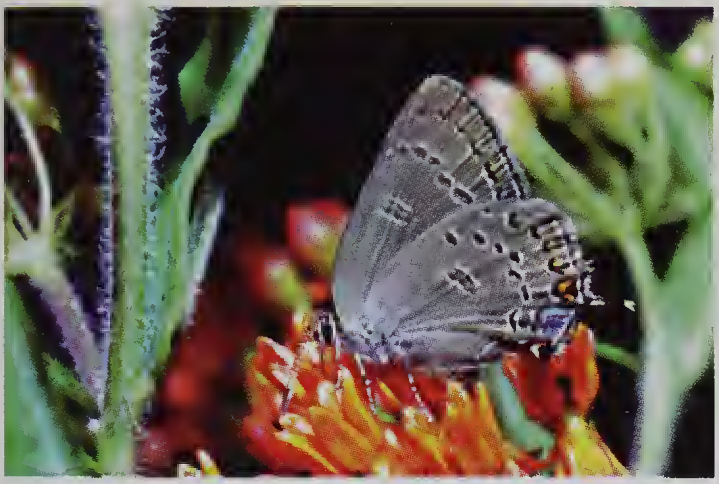
Description: Wingspan 1.0–1.25 in. Tailed. Sexes similar. Underside with postmedian line of white-encircled dark spots. The blue tailspot is not capped. Several adjacent black-capped orange spots are present.

Similar Species: The Acadian Hairstreak underside is light gray and has the blue tailspot orange-capped. Edwards' is brown on the underside. Their habitats are also very different.

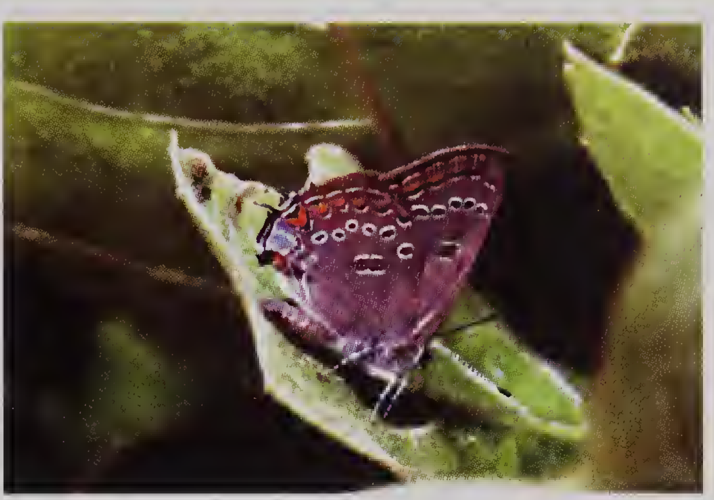
Habitat: Oak forests, in clearings or forest edges. Often near scrub oaks in sandy areas.

Natural History: Univoltine, with adult flight from mid-June through July. Overwinters in the egg stage. Larvae feed on scrub and black oaks (*Quercus* spp.) at night. Look for them in ant nests at the base of the tree during the day. Adults nectar on clovers, dogbane, various milkweeds, and New Jersey tea, a favorite. Both sexes will be found at flowers. Males perch on bushes and low trees, especially oaks, but also other plants, waiting for passing females.

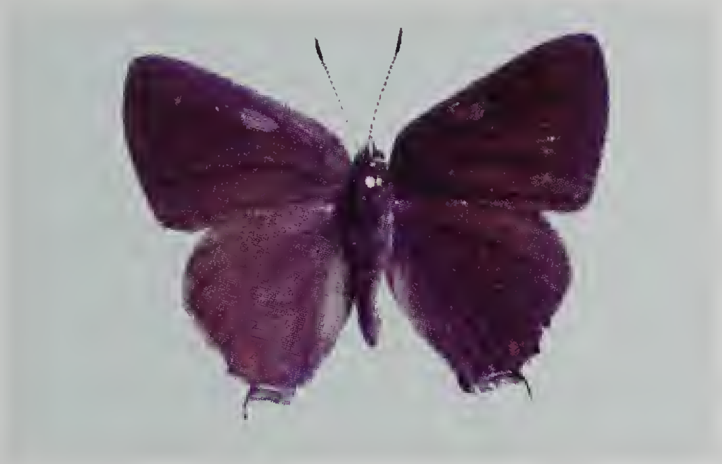
Status: Scattered populations in the northern part of the state. Scarce to common locally, varying from year to year.



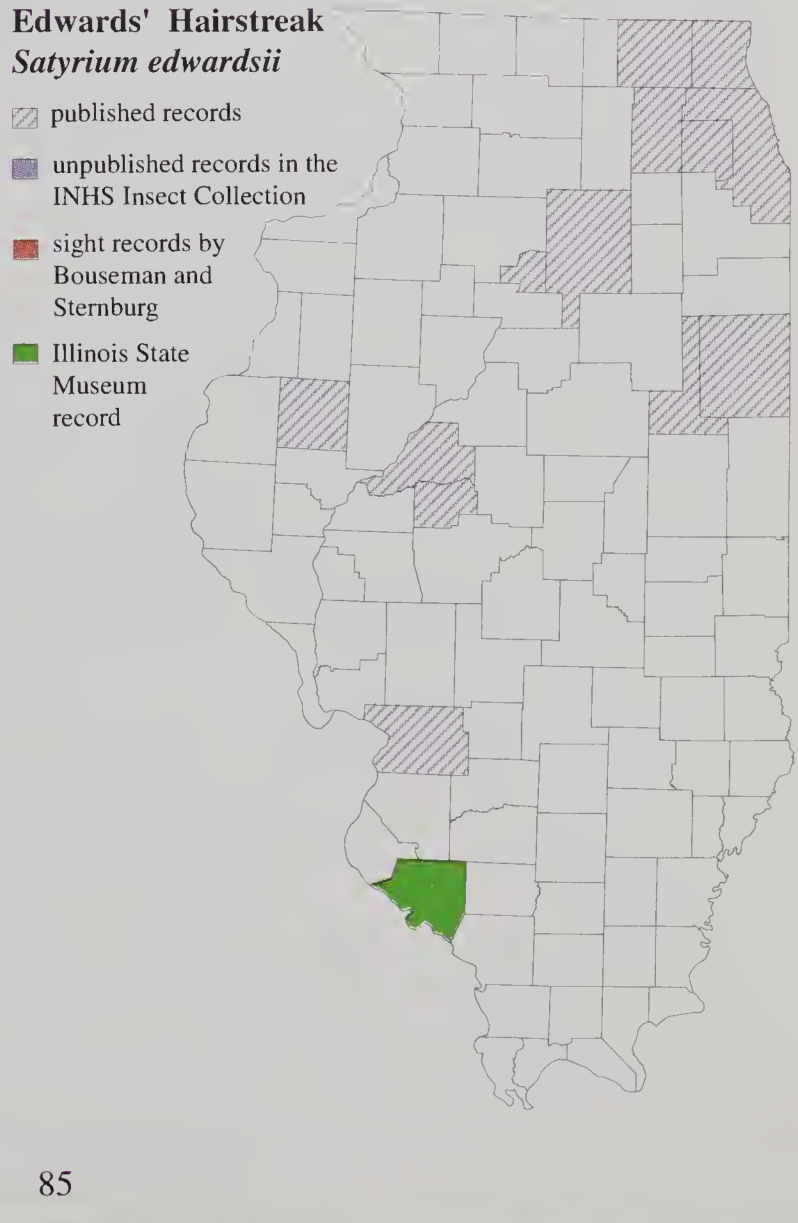
Edwards' Hairstreak, Mason County, IL.



Edwards' Hairstreak, Mason County, IL.



Male, Edwards' Hairstreak, upperside, Mason County, IL.



Edwards' Hairstreak
Satyrium edwardsii
▨ published records
▨ unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg
🟩 Illinois State Museum record

Acadian Hairstreak — Lycaenidae, Theclinae

Satyrium acadicum (W.H. Edwards)

Description: Wingspan 1.25–1.5 in. Tailed. Underside gray with a submarginal row of black-capped orange spots on the hindwing. The blue tailspot is capped with orange. Round black spots form the postmedian row.

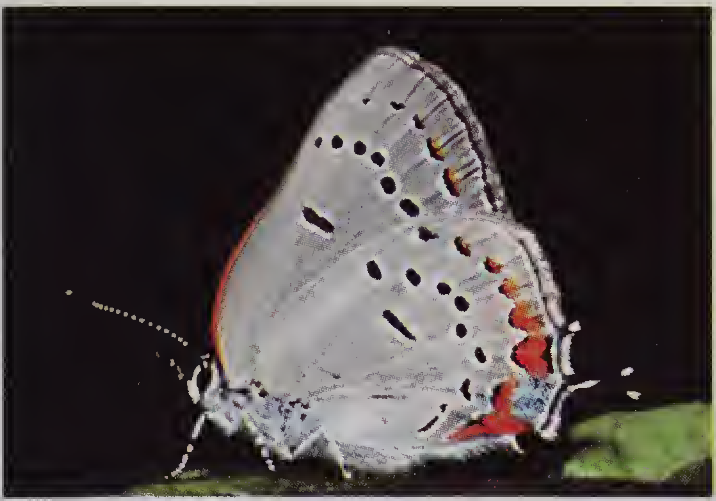
Similar Species: Edwards' Hairstreak is more brown, has the blue tailspot without an orange cap, and the postmedian spots are brown.

Habitat: It occurs where the larval host willows grow, along streams, in marshes, and wetlands. A good indicator of the proper habitat is the presence of blue flag, which, however, is not a larval host.

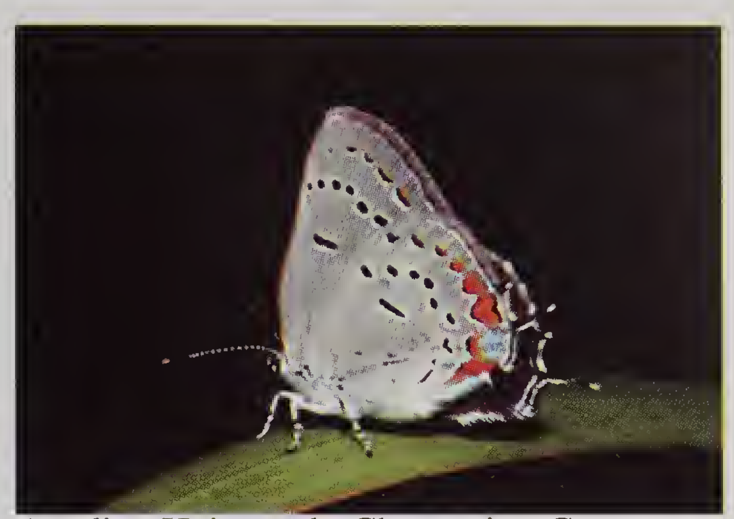
Natural History: One generation, flying from mid-June through July. Males are territorial, taking stations on grasses and other wetland plants usually within a few feet of the ground. As with all hairstreaks, flight is rapid, erratic, and darting, often hard for the observer to follow visually. Perching males will return to the same site after a flight. Females oviposit on various species of willow (*Salix* spp.), the larval hosts. The species overwinters in the egg stage. Larvae feed when the weather warms in the spring. Adults nectar on milkweeds, New Jersey tea, dogbanes, meadowsweet, thistles, and other flowers in the area.

Status: Permanent breeding resident in the northeastern counties of Illinois. Uncommon to common. Occurs in local populations.

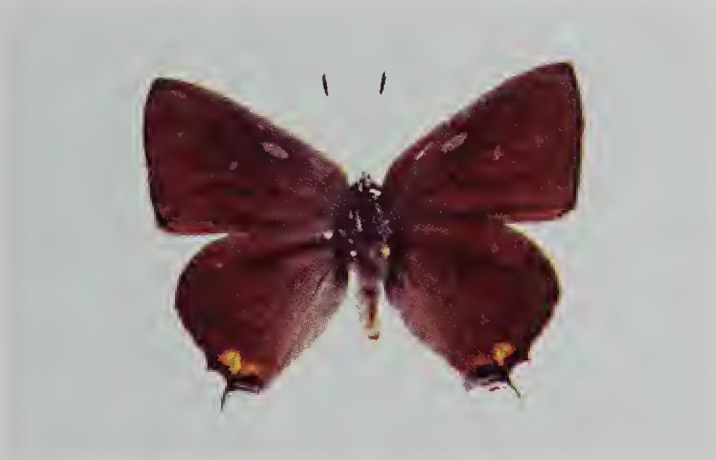
Remarks: In Illinois, its range extends south to Champaign County. A population along highway and railroad rights-of-way has been observed by one of us (J.G.S.) each year since 1948. The site is marshy in part with sandbar willow present, and blue flag thriving. The site also is home to the Bronze Copper and the Gray Copper. Recent removal of the rail line may result in the demise of these populations as vegetation changes occur.



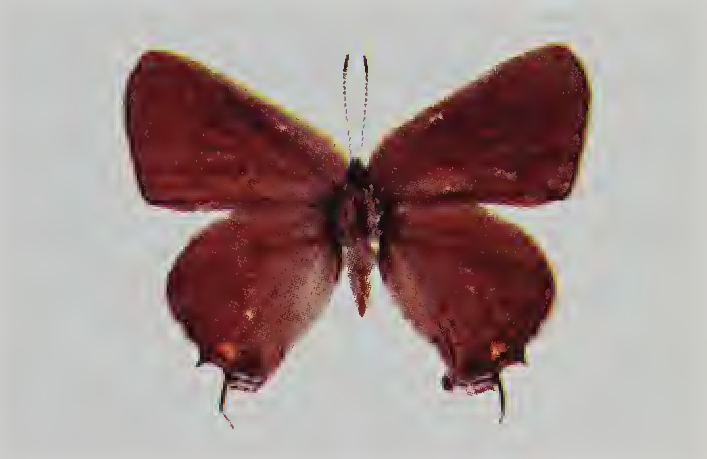
Acadian Hairstreak, Champaign County, IL.



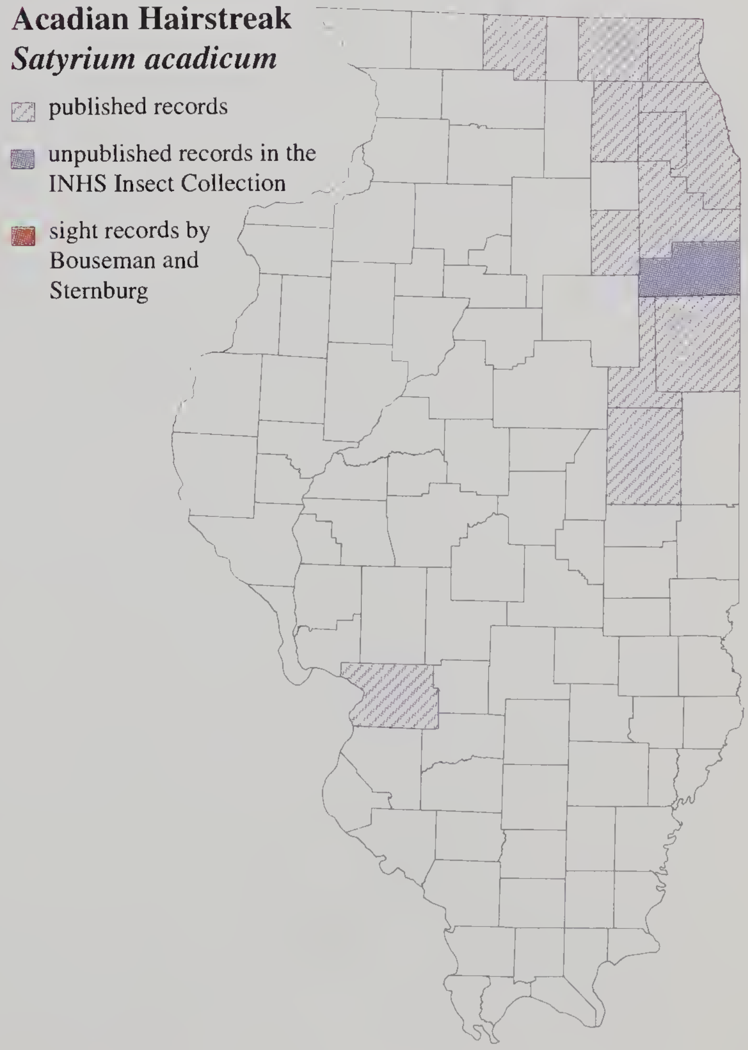
Acadian Hairstreak, Champaign County, IL.



Male, Acadian Hairstreak, upperside, Champaign County, IL.



Female, Acadian Hairstreak, upperside, Champaign County, IL.



Acadian Hairstreak
Satyrium acadicum

▨ published records

▨ unpublished records in the INHS Insect Collection

▨ sight records by Bouseman and Sternburg

Red-banded Hairstreak — Lycaenidae, Theclinae

Calycopis cecrops (Fabricius)

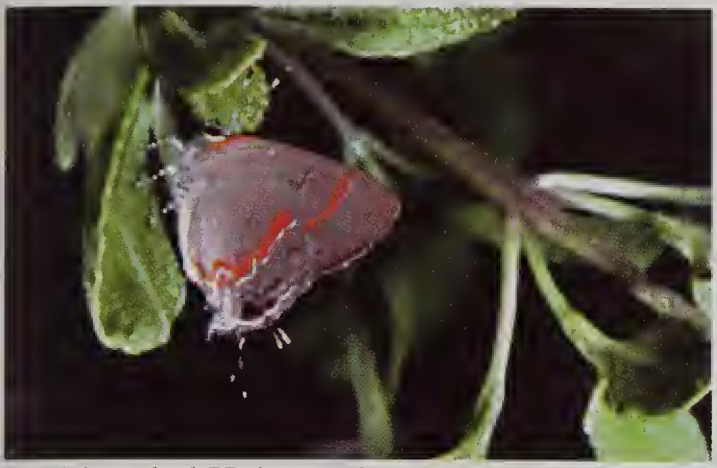
Description: 1.0–1.25 in. Tailed. Sexes similar. Our only hairstreak with a prominent postmedian orange-red band on the underside. The upperside of the wings have the basal area iridescent blue.

Similar Species: None in Illinois. In the tropics there are many related and similar species.

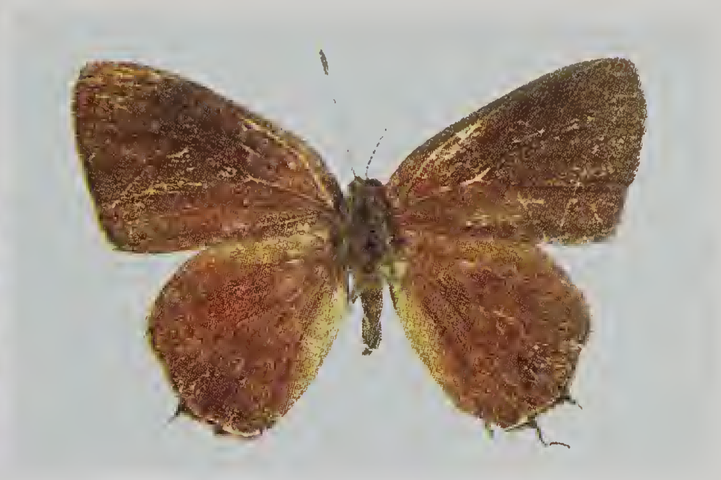
Habitat: Pastures and fields with shrubs and small trees.

Natural History: Bivoltine over most of its range. Overwinters as larvae or eggs. Males perch awaiting females. The eggs are laid on or under leaves on the ground, and not necessarily on the larval food plants. Larvae feed on sumacs (*Rhus* spp.) and oaks (*Quercus* spp.). Adults take nectar from a variety of plants including milkweeds, dogbanes, sumac, and New Jersey tea.

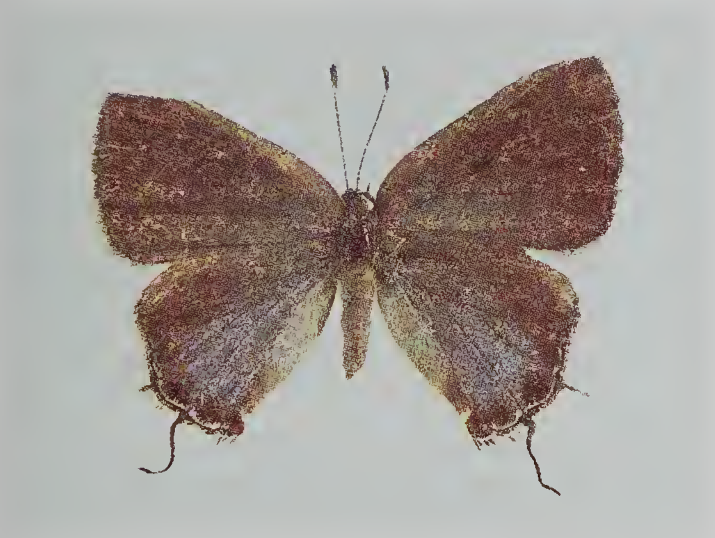
Status: Occasional in southern Illinois, rare farther north.



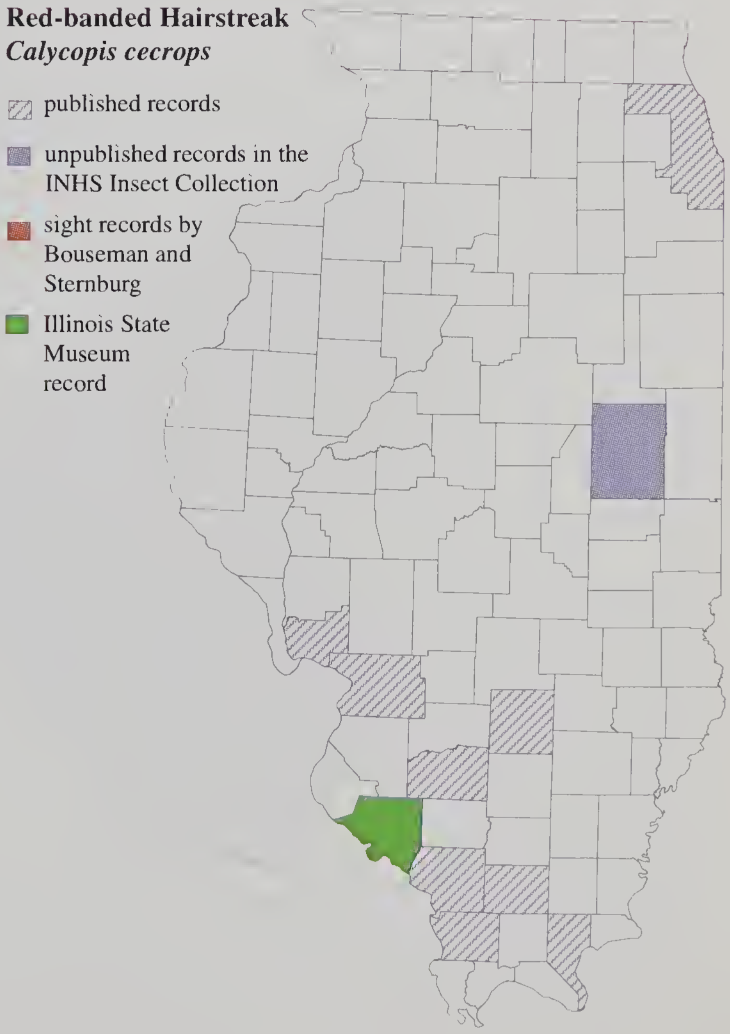
Red-banded Hairstreak, Pope County, IL. *Photo by Michael R. Jeffords.*



Male, Red-banded Hairstreak, upperside, Champaign County, IL.



Female, Red-banded Hairstreak, upperside, the Everglades, FL.


Red-banded Hairstreak
Calycopis cecrops
▨ published records
🟪 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg
🟩 Illinois State Museum record

Hoary Elfin — Lycaenidae, Theclinae

Callophrys polios (Cook and Watson)

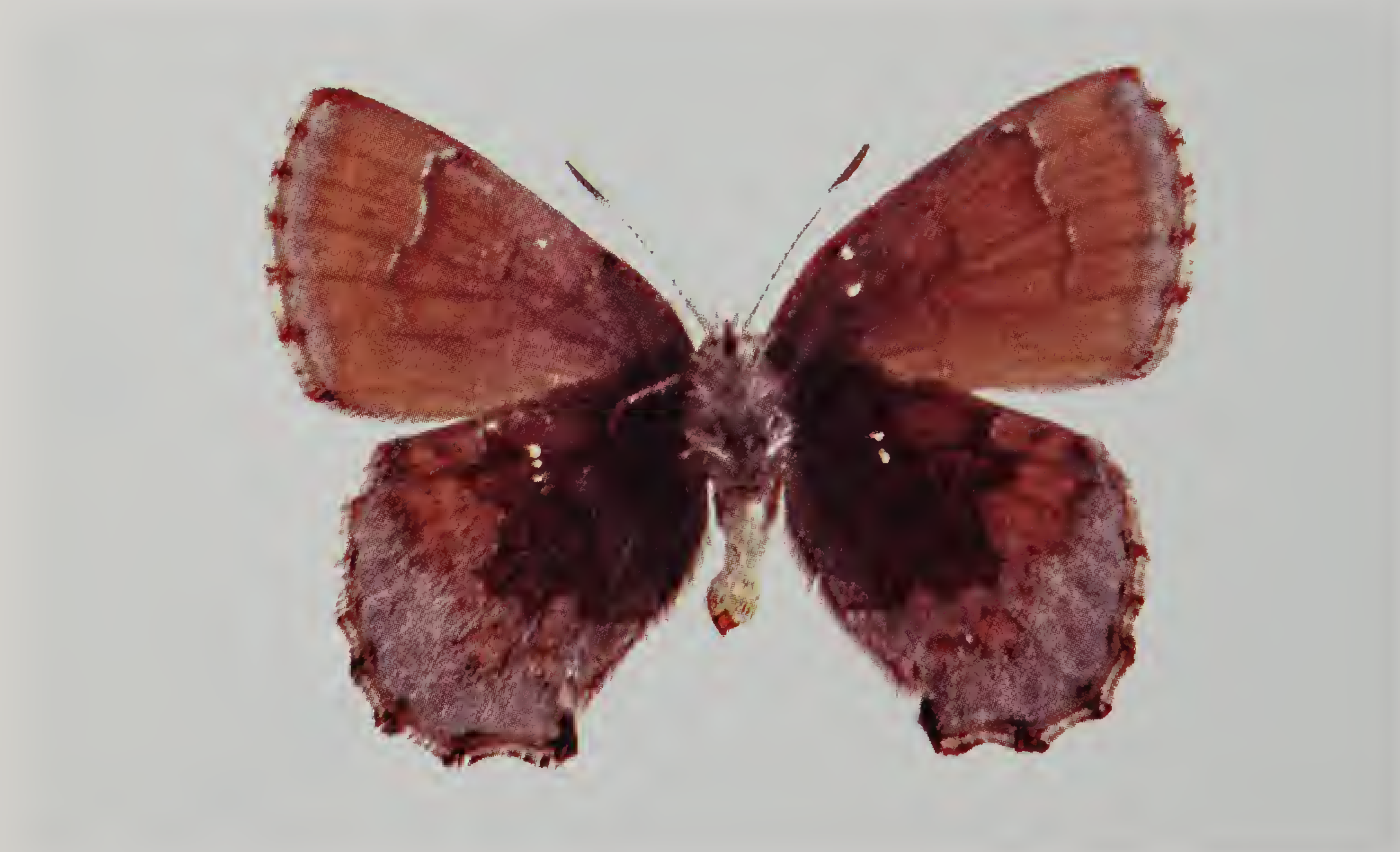
Description: Wingspan 0.75–1 in. There are no tails. Sexes similar. Gray-brown upperside. Underside brown, outer border bright silver gray, dark brown toward the body. Males have a stigma (a patch of androconia, or scent scales).

Similar Species: Henry's Elfin has colors that contrast more dramatically.

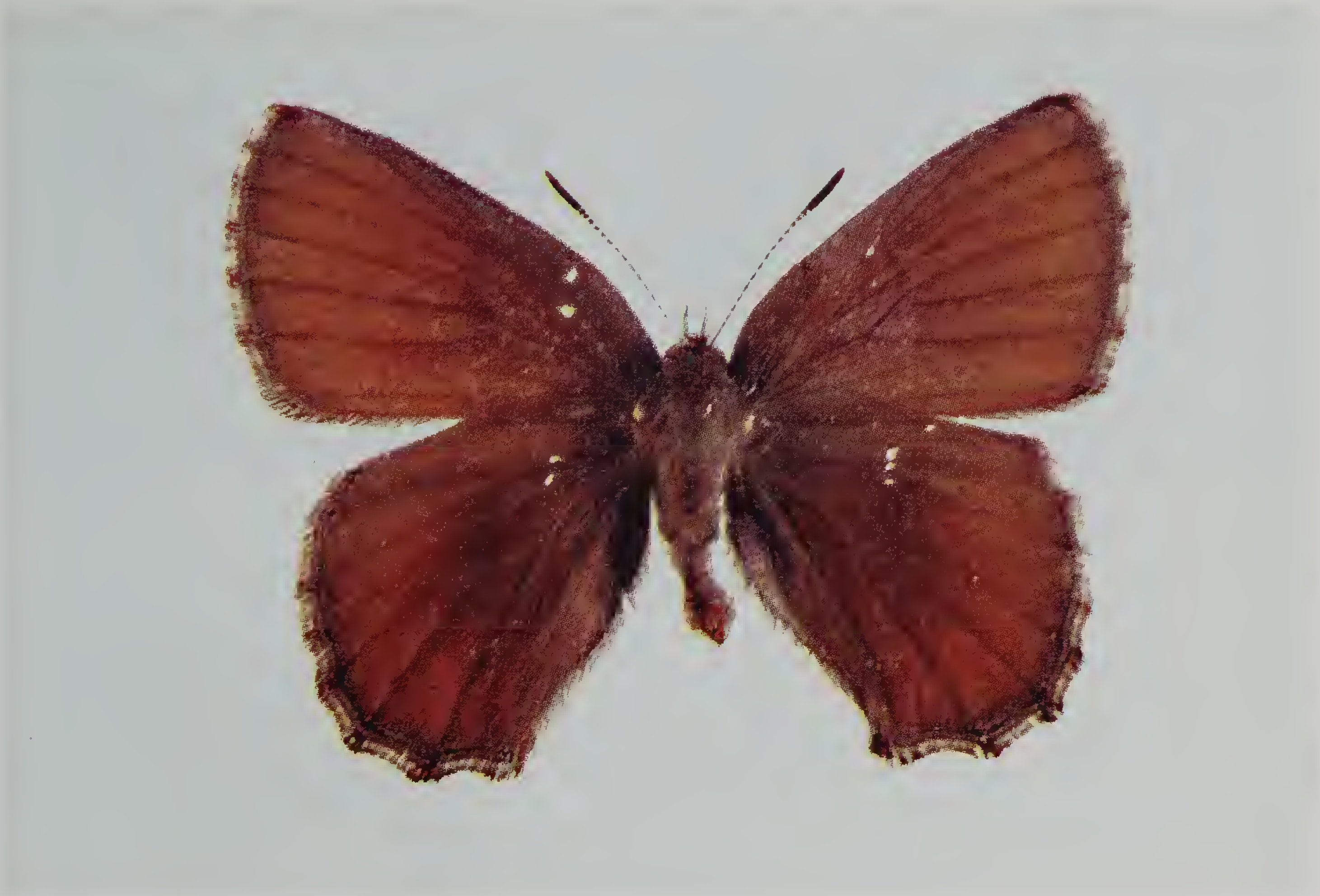
Habitat: Found only in association with the larval host bearberry (*Arctostaphylos uva-ursi*).

Natural History: Univoltine. The pupal stage overwinters. Adult flight is from late April through May, but only for a part of that time each year. The adults are found in close association with the larval host, bearberry. Larvae are found on the flowers, although they are difficult to see because of their cryptic coloration. Flight of the adults is low, and the butterflies often rest on the food plant.

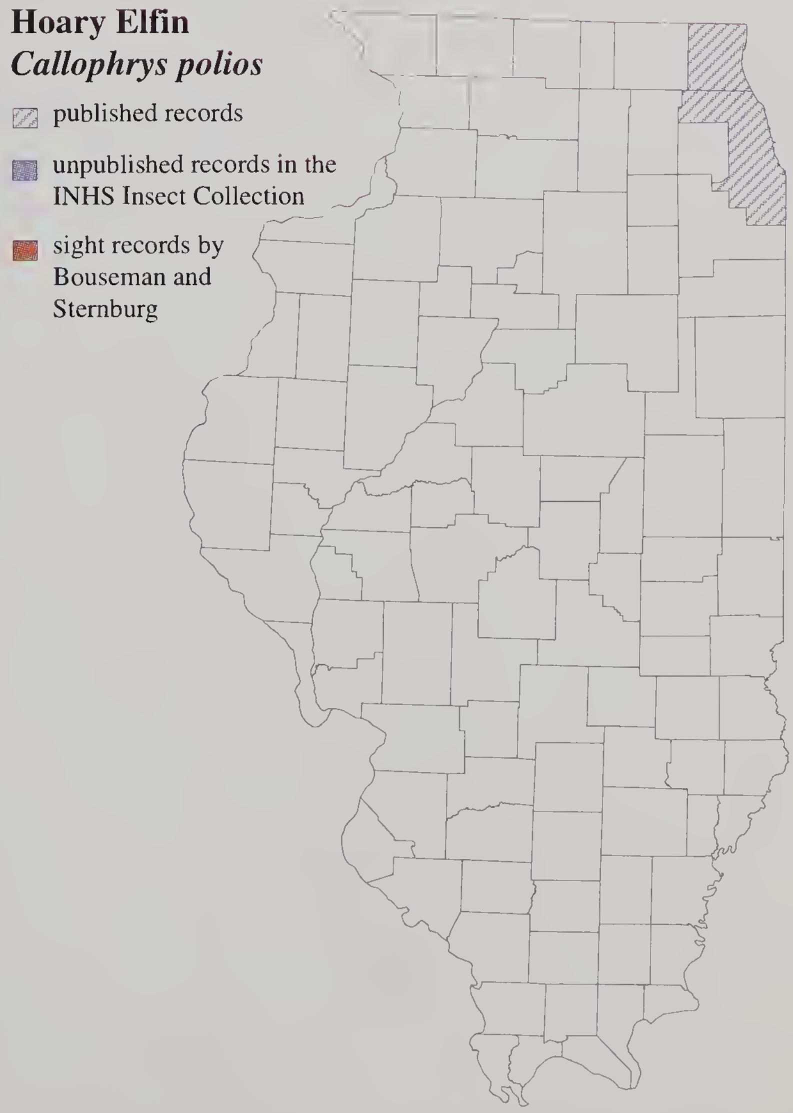
Status: Common at Illinois Beach State Park, Zion, Illinois, in most years. Occasionally abundant. Not known from rest of state.



Hoary Elfin, underside, Newaygo County, MI.



Hoary Elfin, upperside, Newaygo County, MI.



Hoary Elfin
Callophrys polios

▨ published records

▨ unpublished records in the INHS Insect Collection

▨ sight records by Bouseman and Sternburg

Frosted Elfin — Lycaenidae, Theclinae

Callophrys irus (Godart)

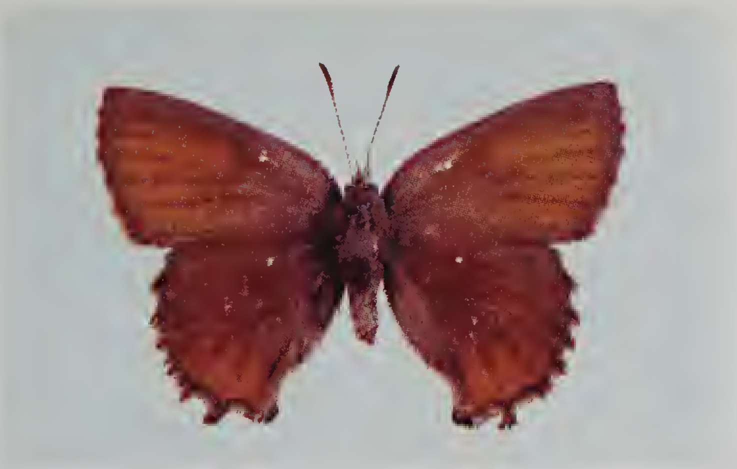
Description: Wingspan 0.8–1.2 in. Short tails. Slight sexual dimorphism; males brown on upperside, females reddish. Males have a forewing stigma (sex patch). The undersides of the hindwings are dusted with light gray over a mottled gray and brown ground color.

Similar Species: This species is less contrasty on the underside than the other elfins.

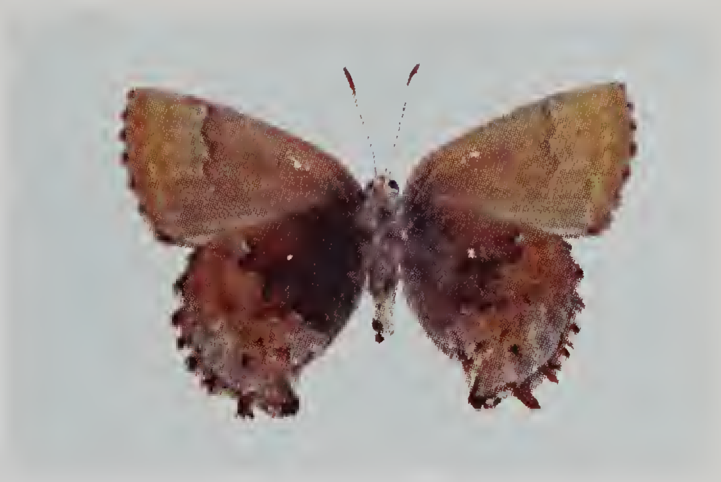
Habitat: Along roads, trails, forest openings where larval hosts grow.

Natural History: Univoltine. Pupae overwinter in leaf litter. Adults appear in April and May. They occur in very local populations where the larval food plants occur. The larvae feed upon the fruits of lupines (*Lupinus*) and false indigos (*Baptisia* spp.).

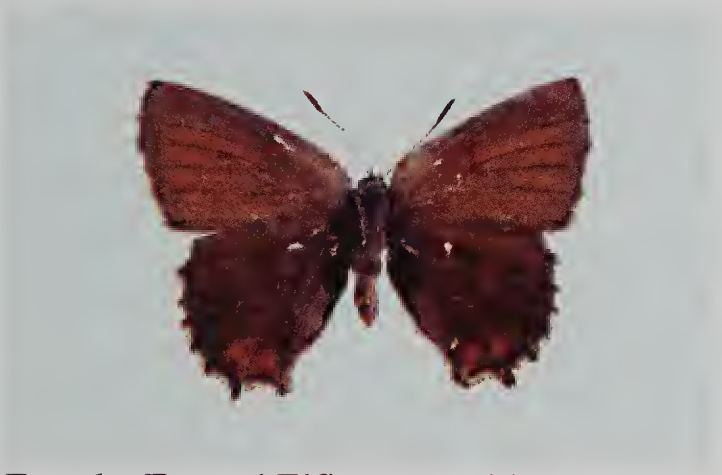
Status: In Illinois known only in northeastern counties. Rare and very local.



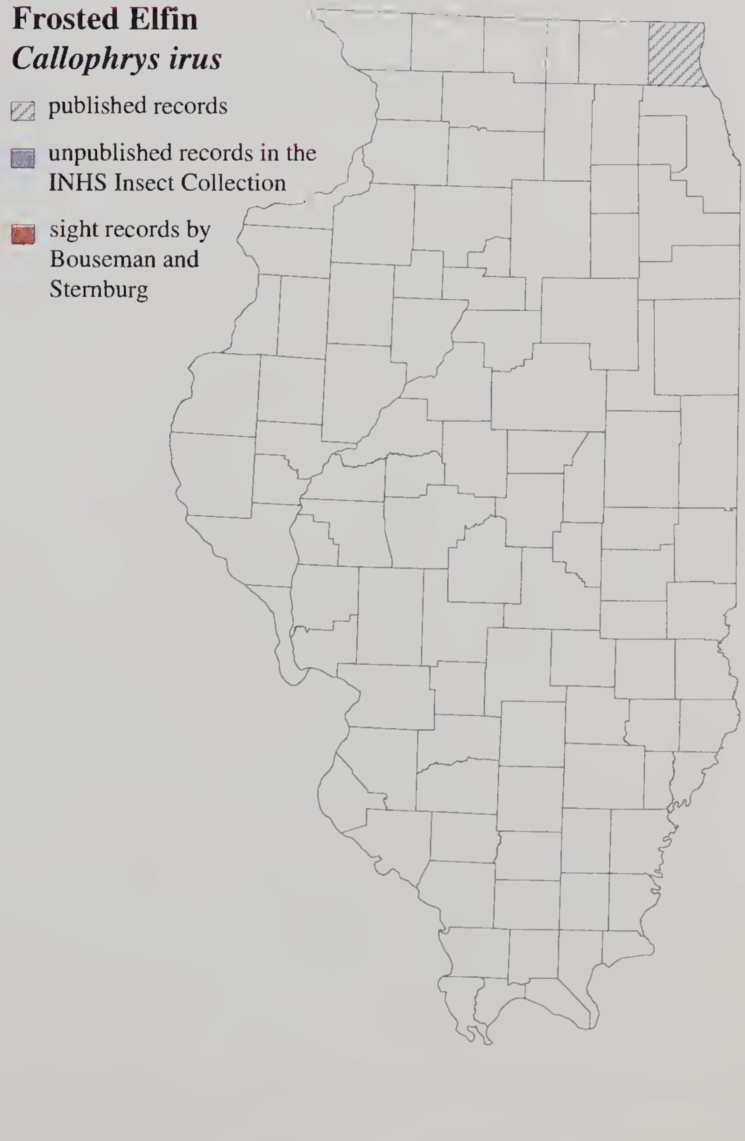
Male, Frosted Elfin, upperside, Lake County, IL.



Frosted Elfin, underside, Lake County, IL.



Female, Frosted Elfin, upperside, Lake County, IL.



Frosted Elfin
Callophrys irus

▨ published records
🟪 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Henry's Elfin — Lycaenidae, Theclinae

Callophrys henrici (Grote and Robinson)

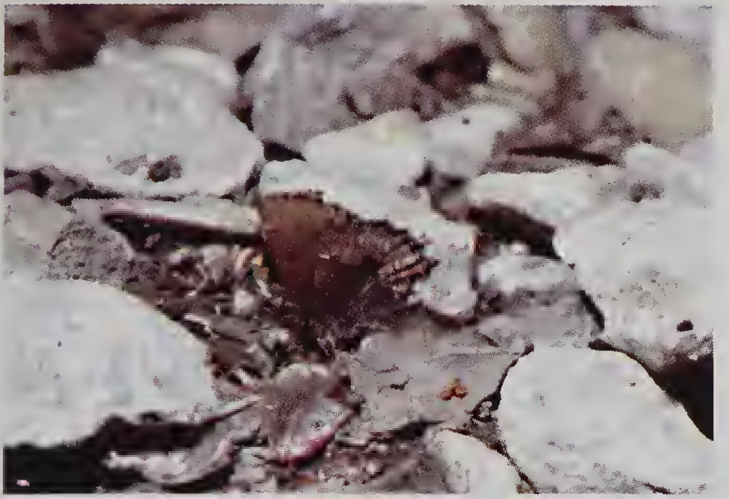
Description: Wingspan 0.9–1.1 in. Short tails present. Upperside dark brown with red scaling on females. The male has a forewing stigma. Wings on the underside are dark brown at their base and lighter yellow brown outward. The two-toned contrast is conspicuous.

Similar Species: The Frosted Elfin is more evenly colored. The Pine Elfin has a more complicated pattern of lines and bars. The Hoary Elfin has no tails.

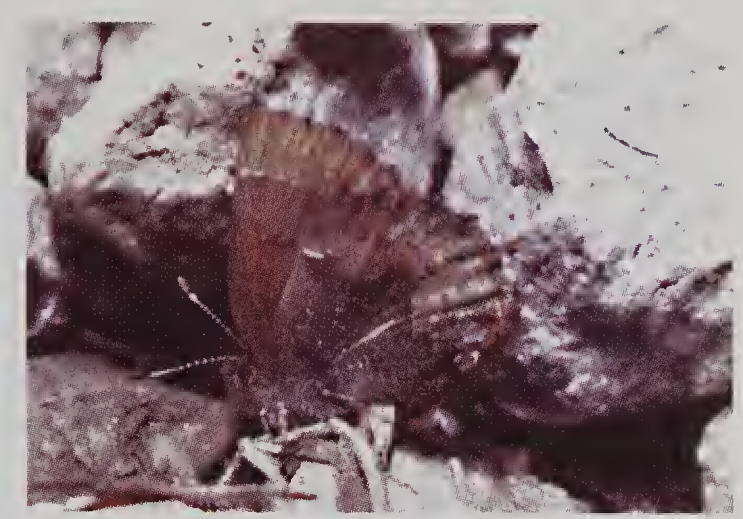
Habitat: Shady deciduous forests, where the larval hosts grow. Redbud is favored.

Natural History: Univoltine. Overwinters as pupae. Adults appear for several weeks when redbud is in bloom. Adults often tend to perch a few feet off the ground. They may also be seen flying above the redbuds, interacting with each other. Some may be observed resting on the flowers. Males wait for passing females. Eggs are laid on or near flowers of *Cercis canadensis* (redbud), some *Prunus* spp. (wild plums), *Vaccinium* spp. (blueberries), and *Gaylussacia baccato* (huckleberries). The larvae feed on the flowers and bore into the fruits and pods.

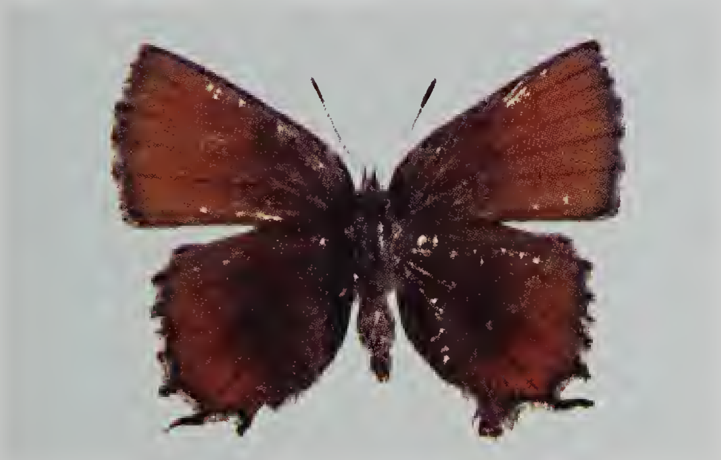
Status: Extremely local, but probably statewide. Sometimes locally common; often scarce.



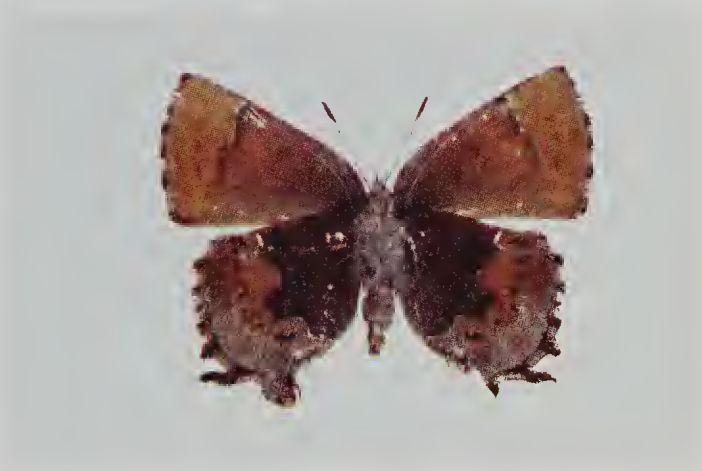
Male, Henry's Elfin, Piatt County, IL.



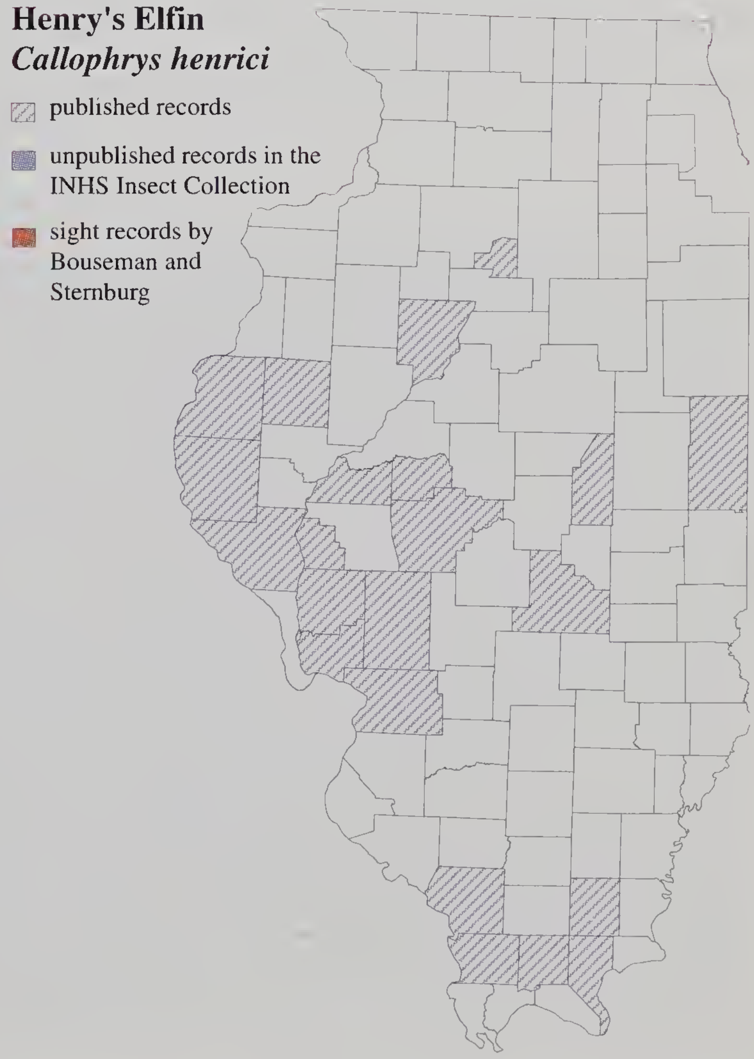
Male, Henry's Elfin, Piatt County, IL.



Henry's Elfin, upperside, Sangamon County, IL.



Henry's Elfin, underside, Sangamon County, IL.



Henry's Elfin
Callophrys henrici

▨ published records
■ unpublished records in the INHS Insect Collection
■ sight records by Bouseman and Sternburg

Pine Elfin **Lycaenidae, Theclinae**

Callophrys niphon (Hübner)

Description: 0.75–1.25 in. No tails. Sexes similar. Upperside brown or light brown with darkened margins. Underside has a network of dark brown lines edged with white.

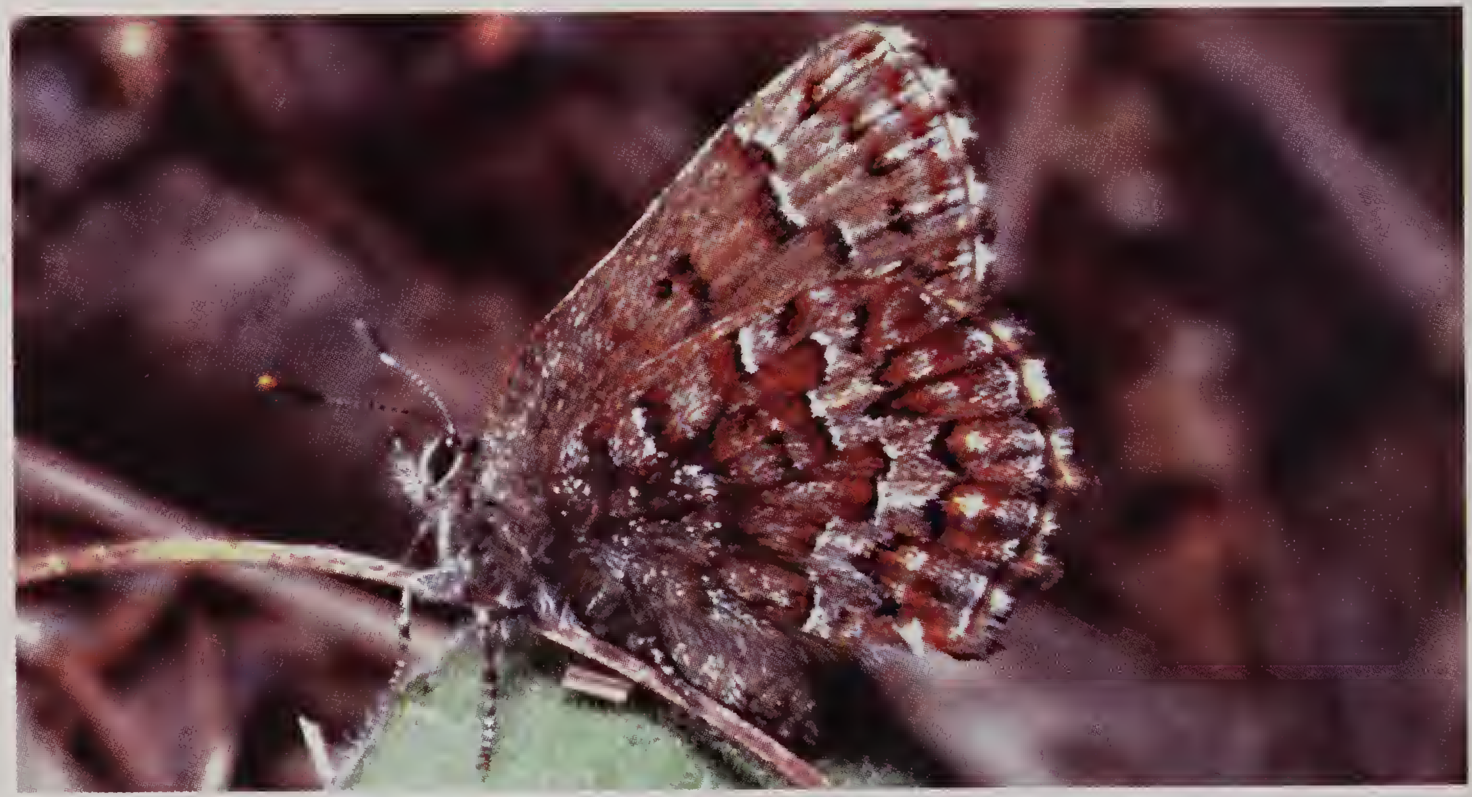
Similar Species: The contrasting markings of underside easily separate this species from other Illinois elfins.

Habitat: Forested areas where native and introduced pines (*Pinus* spp.) occur. Along roads and trails.

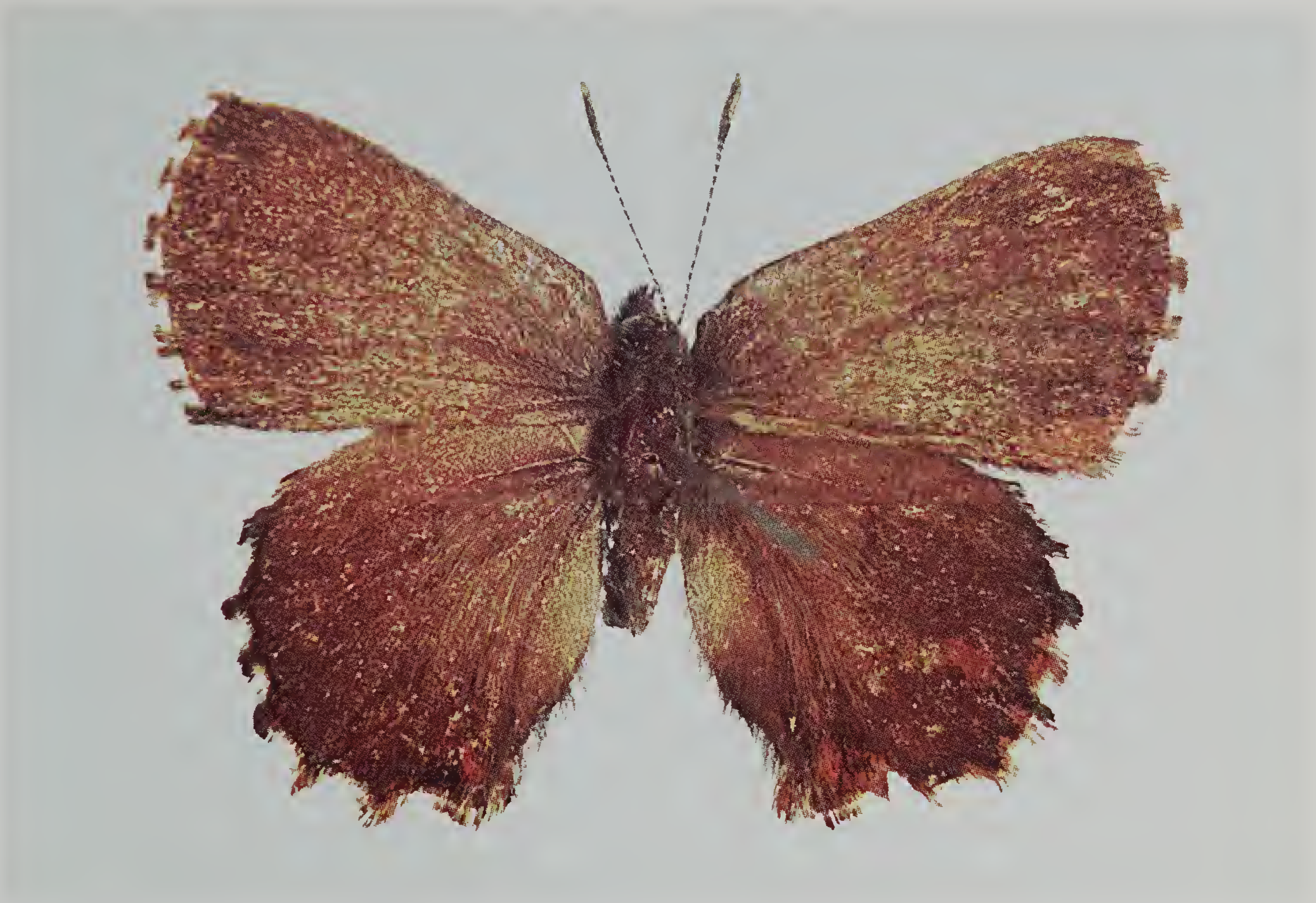
Natural History: Univoltine, with adults appearing in April and May. The species overwinters as pupae. Adults often perch on the smaller pines; tapping the plant will startle them into flight, and unless too startled, they will return to the same or nearby perch. The larvae feed on species of hard pines, with populations to be found in areas where these grow. The larvae are longitudinally striped to resemble the pine needles. When fully fed, they descend to pupate in leaf litter on the ground. Adults nectar on many varieties of flowers. One of us (J.K.B.) has observed them on *Prunus* spp.

Status: Most records are for southern Illinois. The species is not common. It should be found throughout the state where pines grow.

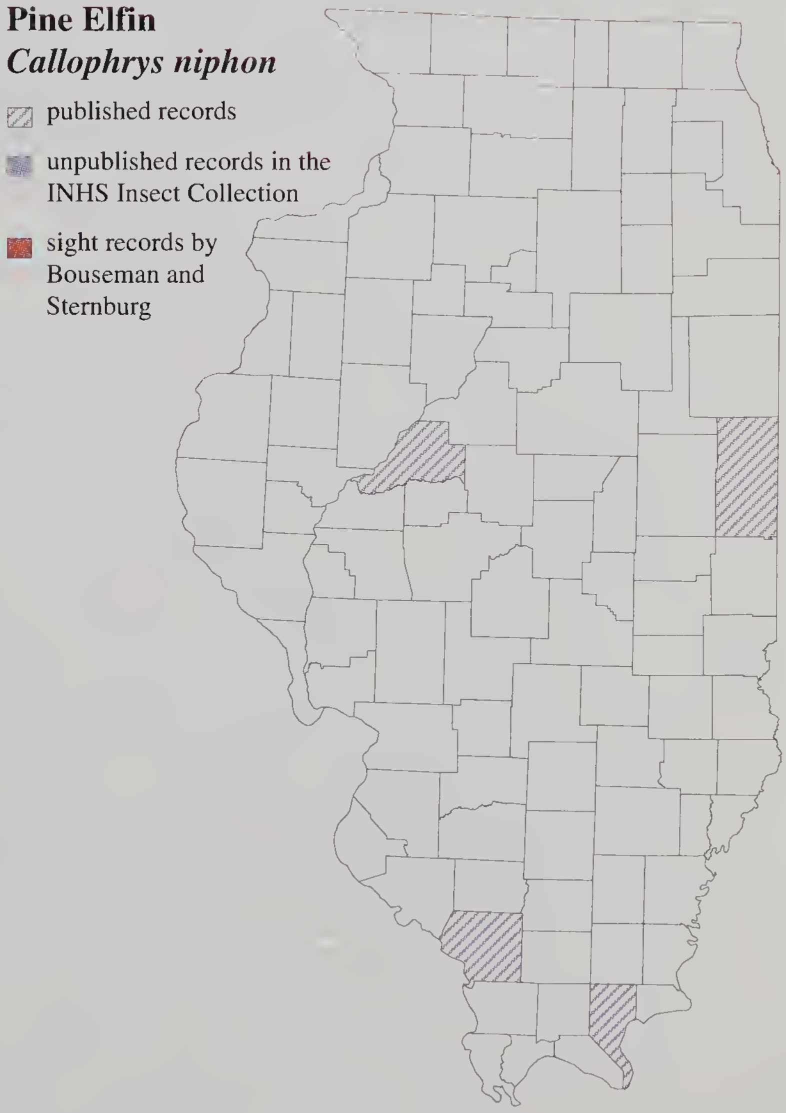
Remarks: Often listed by the generic name *Incisalia.*



Pine Elfin, Emmet County, MI.



Pine Elfin, upperside, Pope County, IL.


Pine Elfin
Callophrys niphon
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Olive Hairstreak **Lycaenidae, Theclinae**

Callophrys gryneus (Hübner)

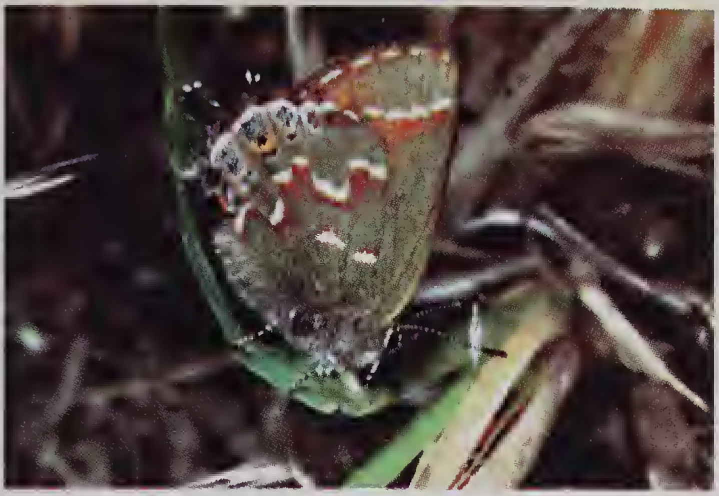
Description: Wingspan 1.0–1.25 in. Tailed. Sexes similar. Seasonally dimorphic. First generation individuals, especially females, have the upperside mostly orange. Those of the summer brood are dark brown with less orange. The hindwing underside is apple-green with a white postmedian band bordered basally with orange.

Similar Species: None in Illinois.

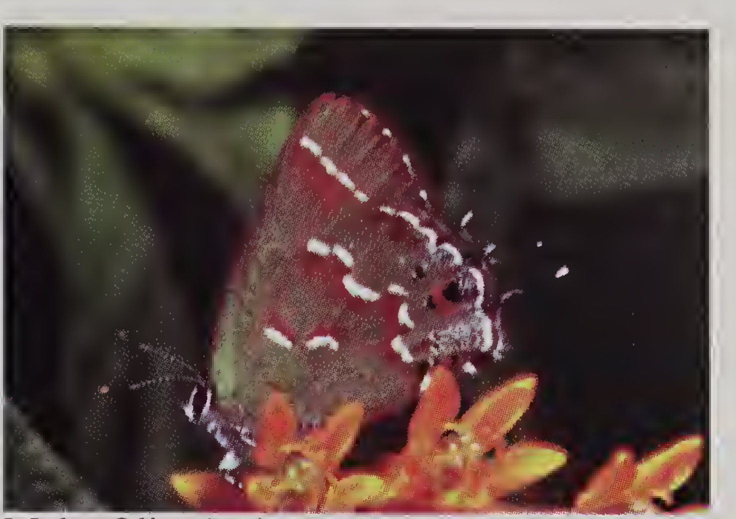
Habitat: Old fields and roadsides where red cedars grow.

Natural History: Bivoltine. Overwinters as pupae. First generation adults appear in April and May, closely associated with red cedar (*Juniperus virginiensis*). Males perch and wait for passing females. Eggs are laid on the foliage and twigs of red cedar in Illinois. Second-generation adults appear in July. Larvae feed on red cedar, perhaps other junipers. Adults nectar on flowers, including milkweeds, New Jersey tea, and other species, depending on the season. The authors have encountered it in numbers on white sweet clover in the vicinity of junipers. They often are near the tops of the cedars, and if disturbed, readily take off, only to return to the same or nearby perch.

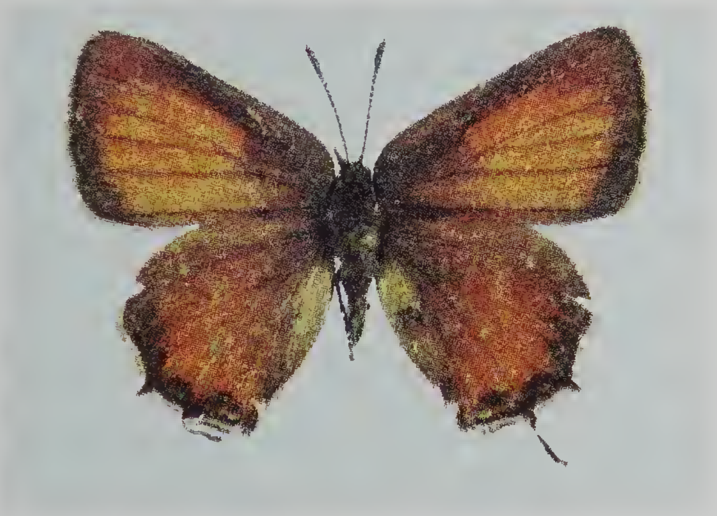
Status: Probably statewide. Often scarce, it can be locally common, especially in the southern counties.



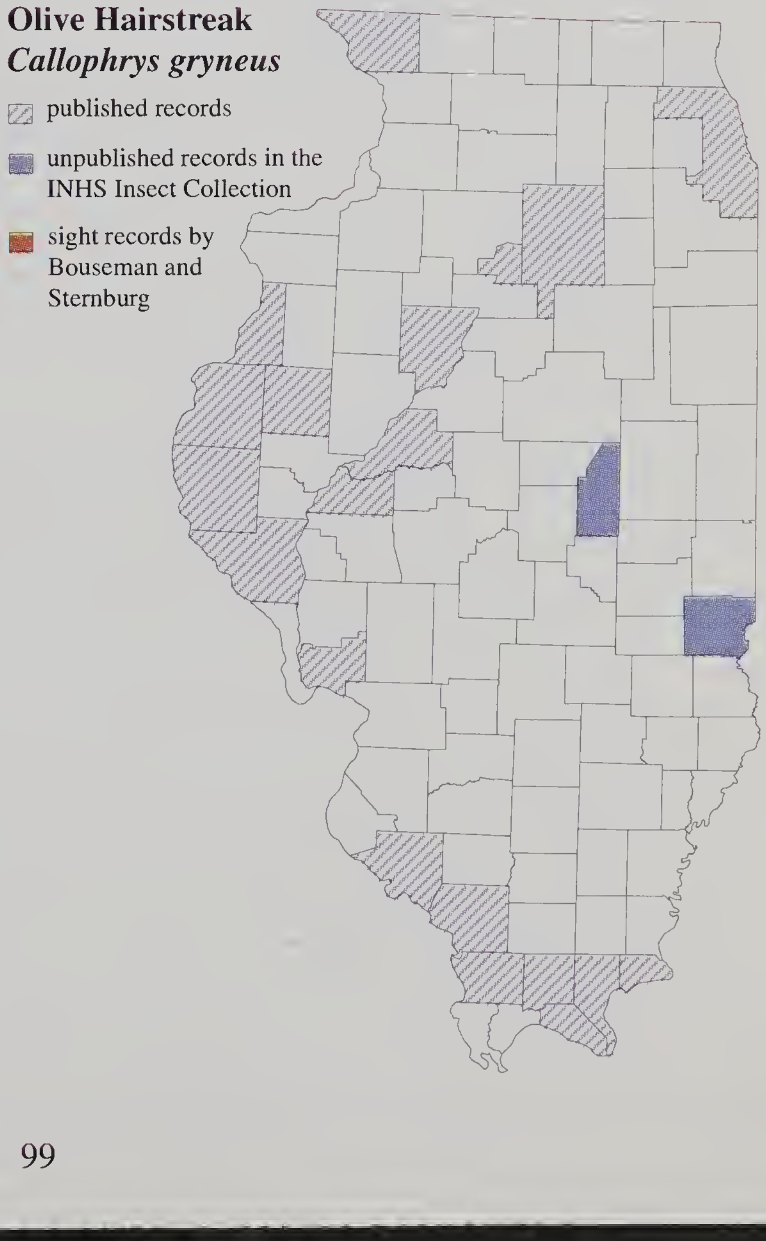
Olive Hairstreak, Pope County, IL.



Male, Olive Hairstreak, Clark County, IL.



Olive Hairstreak, upperside, Pope County, IL.



Olive Hairstreak
Callophrys gryneus

▨ published records

🟦 unpublished records in the INHS Insect Collection

🟧 sight records by Bouseman and Sternburg

Great Purple Hairstreak — Lycaenidae, Theclinae

Atlides halesus (Cramer)

This is easily the most spectacular of the hairstreaks of the eastern United States.

Description: Wingspan 1.4–2.0 in. Slightly sexually dimorphic. Males have more iridescent blue areas on the upperside than do the females. On the underside, both sexes have the wing bases red-orange with many iridescent blue spots on the hindwing tornus.

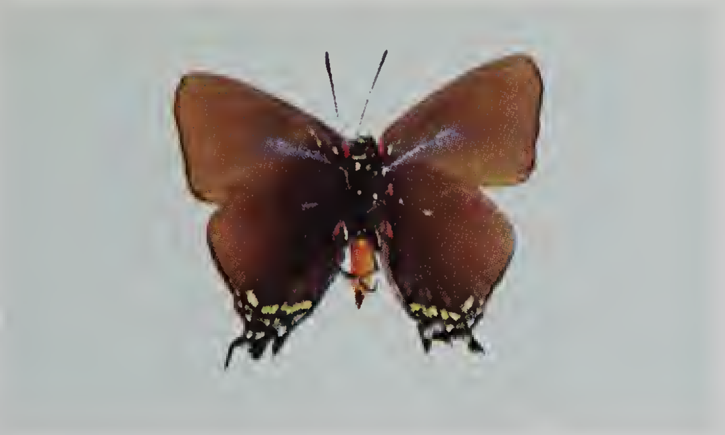
Similar Species: The only other hairstreak in Illinois with the upperside iridescent blue is the White M Hairstreak. It is smaller, a brighter blue, the underside of the wings is dark with white lines, and a blue tail spot.

Habitat: Found in forested areas where mistletoes grow.

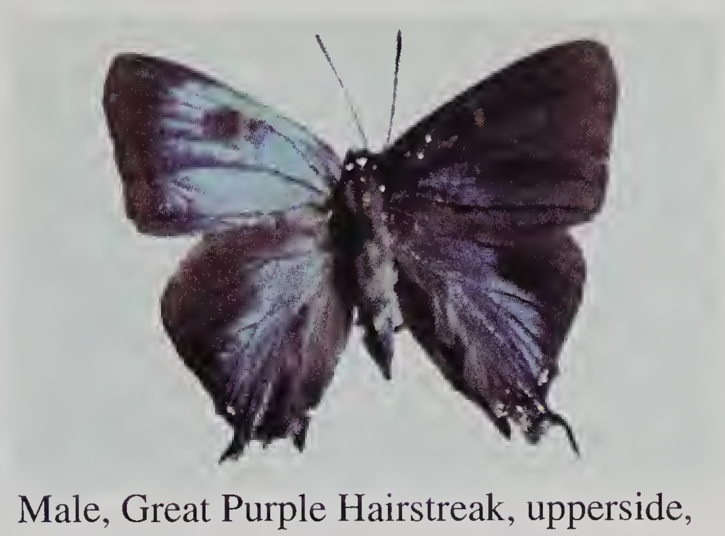
Natural History: Multivoltine with two or three generations per year. The adults are very arboreal, often remaining high in the trees where the larval food plant grows. Adults nectar at a variety of flowers, often on wild plum, goldenrod, and beggar-ticks species, but not restricted to these. They come down from the trees to feed and to imbibe water from damp sites. The flight of this species is erratic and somewhat slower than for many hairstreaks. Males perch at some height awaiting females. Females oviposit on mistletoe (*Phoradendron serotinum*), the only larval host. The larvae feed upon the leaves. Pupation is under or on the bark where mistletoe grows.

Status: Scarce. Illinois is at the northern limit of the species in the Midwest. Because of its arboreal nature, it may be more common than thought. Restricted to the southernmost counties.

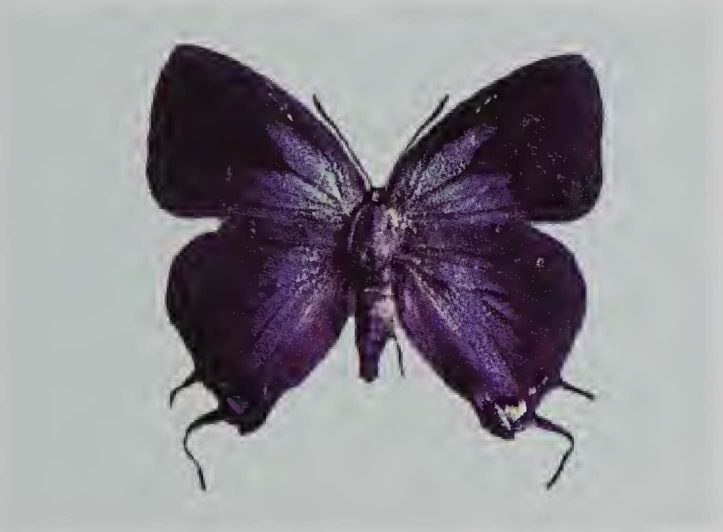
Remarks: The highly iridescent blue is typical of many of the Neotropical hairstreaks. In all cases, the color is physical, not chemical, due to the absorption and reflection of light of certain wavelengths. In general, blue coloration in Lepidoptera is due to this characteristic.



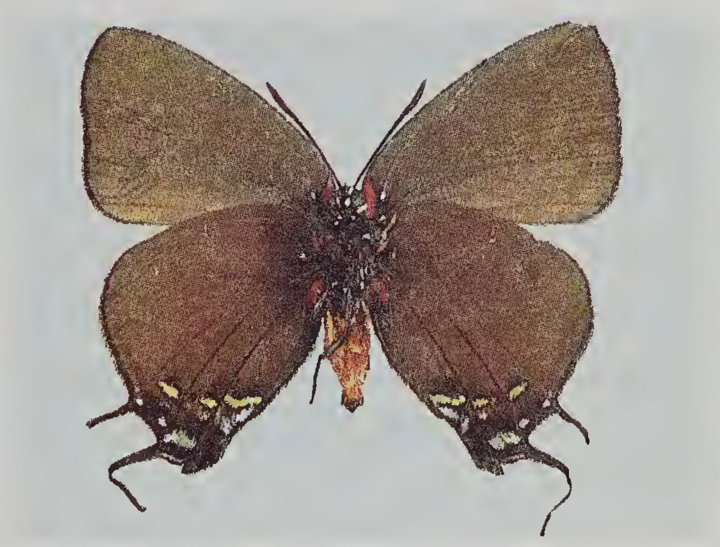
Male, Great Purple Hairstreak, underside, Pinale, AR.



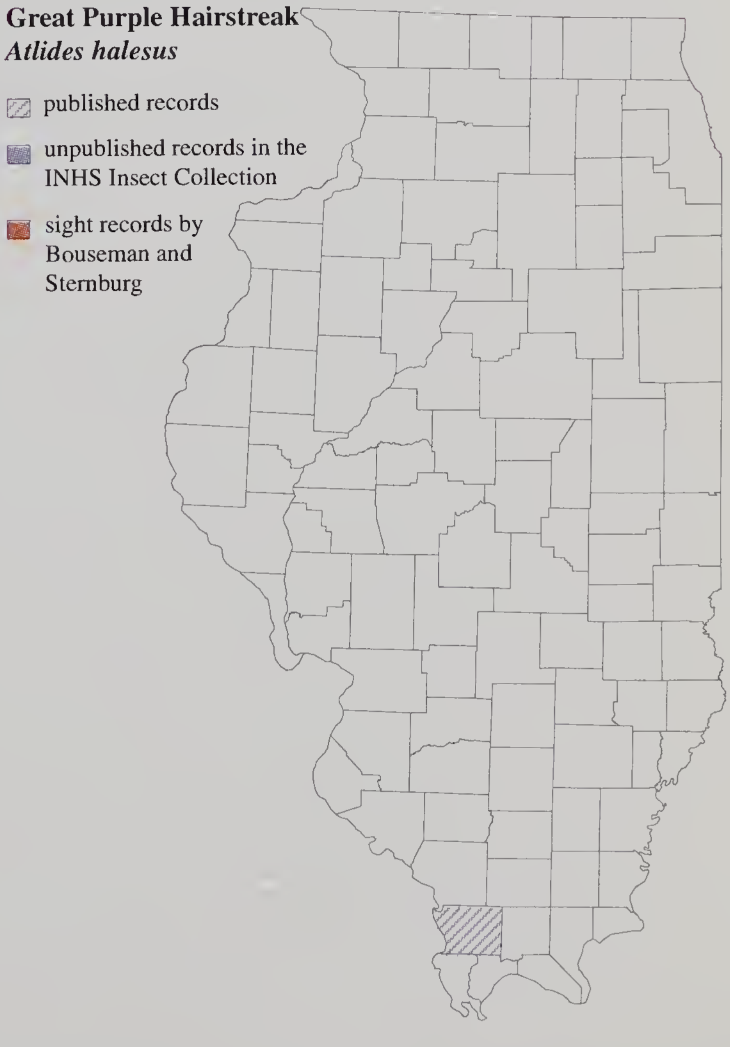
Male, Great Purple Hairstreak, upperside, Pinale, AR.



Female, Great Purple Hairstreak, upperside, Bibb County, GA.



Female, Great Purple Hairstreak, underside, Bibb County, GA.


Great Purple Hairstreak
Atlides halesus
▨ published records
▨ unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Northern Hairstreak Lycaenidae, Theclinae

Fixsenia favonius ontario (W.H. Edwards)

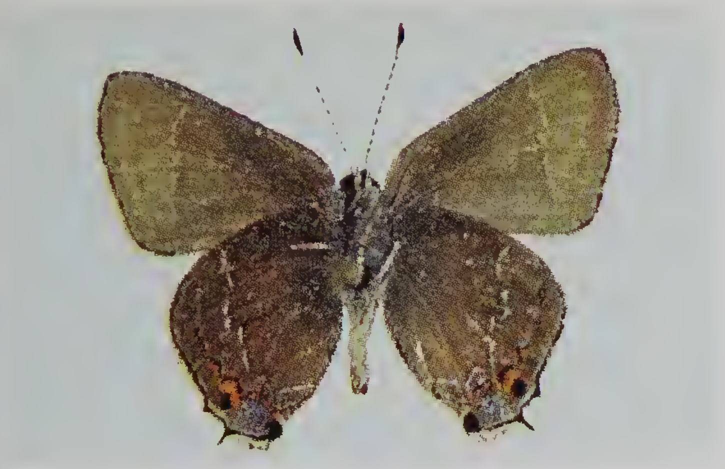
Description: Wingspan 1.1–1.5 in. Tailed. Sexes similar. The upperside of the species is variable, with varying amounts of orange in different individuals. Northern populations are mostly brown with little orange on the upperside. The underside is brownish gray, the blue tailspot has a narrow orange cap, and there is a white-edged black postmedian line with a "W" at the inner margin. Males have a sex patch on the forewing upperside.

Similar Species: The Gray Hairstreak is less brownish on the underside, and the upperside of males lacks a forewing sex patch.

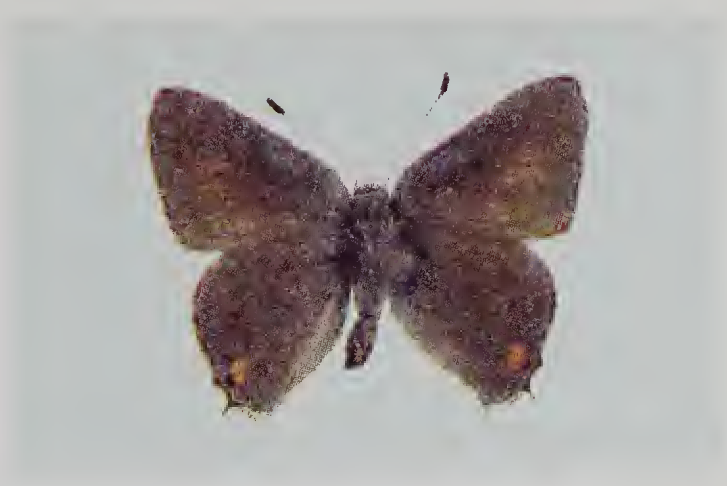
Habitat: Edges of forests, along open trails, or glades.

Natural History: Univoltine, with adults from the time early species of wild plum flower and into June. Larvae feed on foliage of oaks (*Quercus* spp.). Adults take nectar from wild plum and various early-spring flowers, including white sweet clover, dogbanes, New Jersey tea, and milkweeds.

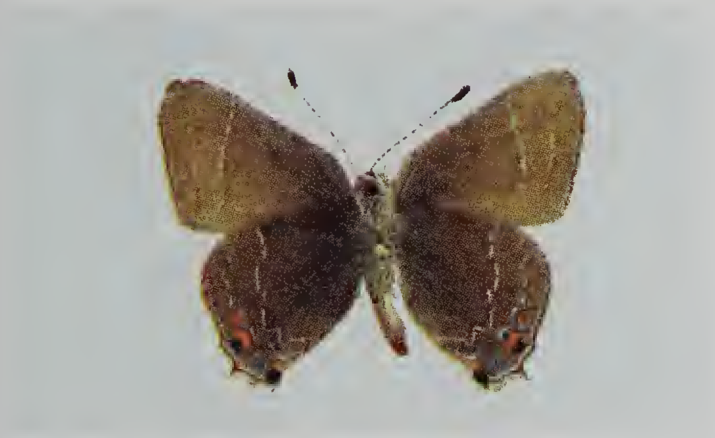
Status: Rare and always a surprise. It has been taken mostly in southern counties during May, but probably occurs statewide.



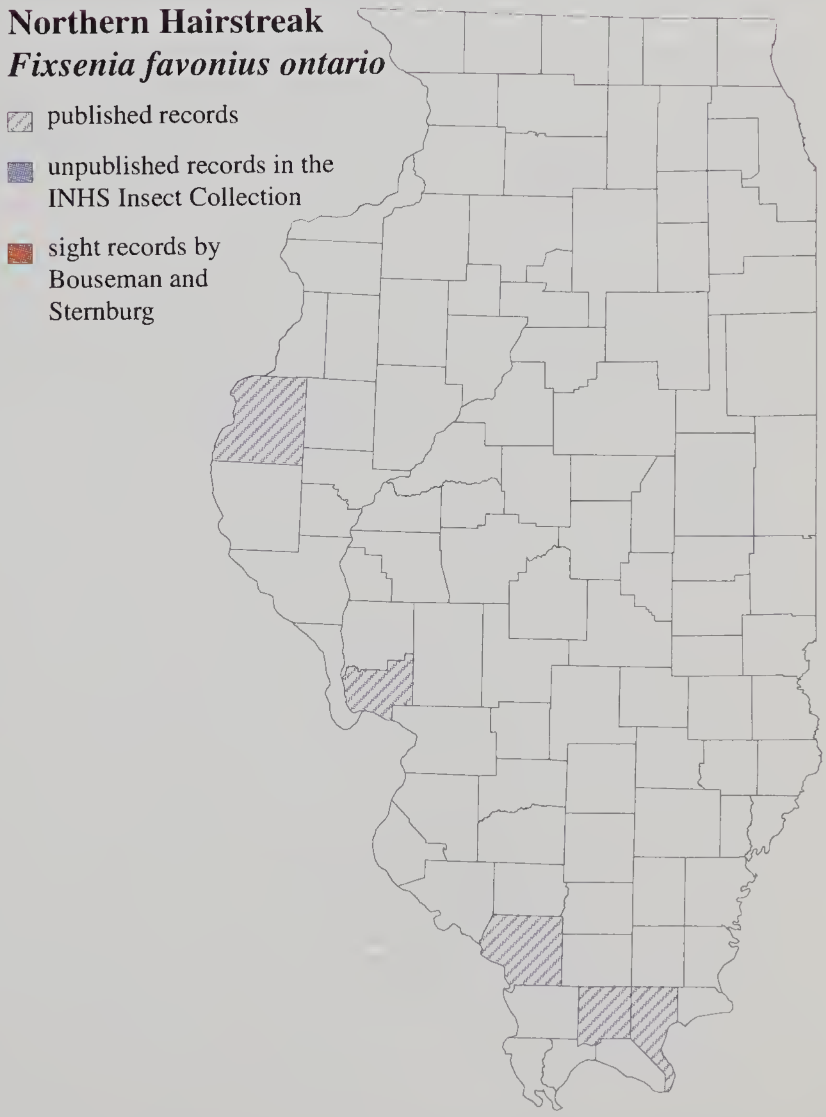
Male, Northern Hairstreak, underside, Pope County, IL.



Male, Northern Hairstreak, upperside, Jackson County, MO.



Male, Northern Hairstreak, underside, Jackson County, MO.


Northern Hairstreak
Fixsenia favonius ontario
▨ published records
▨ unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

White M Hairstreak — Lycaenidae, Theclinae

Parrhasius m-album (Boisduval and LeConte)

A magnificent hairstreak, equally as impressive as the Great Purple Hairstreak. Once seen, never forgotten.

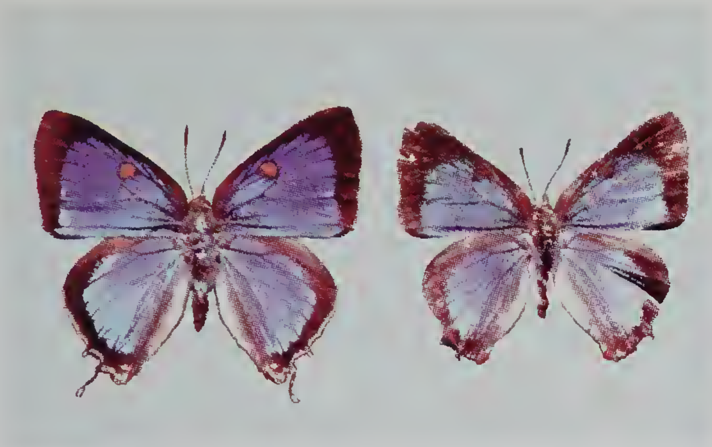
Description: Wingspan 1.25–1.6 in. Tailed. Slight sexual dimorphism. Males on the upperside are a brilliant iridescent blue with narrow black borders. Females have wider black borders, and the blue reduced and not as brilliant. The underside is gray-brown, with a white postmedian band forming an "M" or "W" at the anal region.

Similar Species: While the Great Purple Hairstreak has as brilliant a blue as the White M Hairstreak in Illinois, there is no resemblance between the two on the underside.

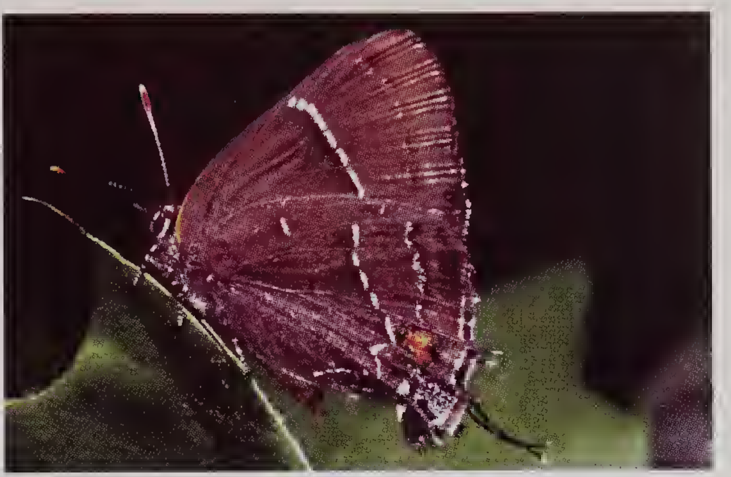
Habitat: Forests, along the edges or clearings, where oaks grow.

Natural History: Multivoltine, usually three broods, the first in May, then in early and late summer. Overwinters as pupae. Larvae are known to feed on the foliage of various oaks (*Quercus* spp.). Adults are often arboreal, except when descending to feed at flowers, or the males to visit damp sites. The species often wanders and may be found far from oak trees. Males perch high in the trees, darting out at passing insects in search of females. Flight is fast and very erratic. Nectaring occurs at milkweeds, dogbanes, New Jersey tea, and other plants in season.

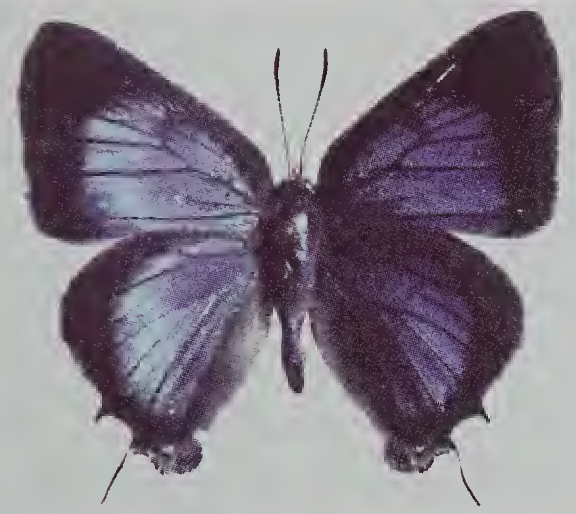
Status: Probably statewide. It occurs in populations and also as single isolated vagrants. Sometimes common in a local population. Usually considered scarce, however. It is a breeding resident.



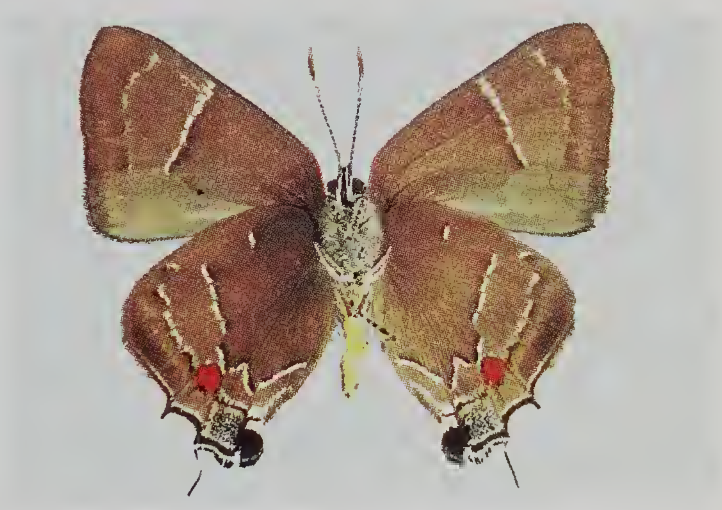
Male (left) and female, White M Hairstreak, Piatt County, IL.



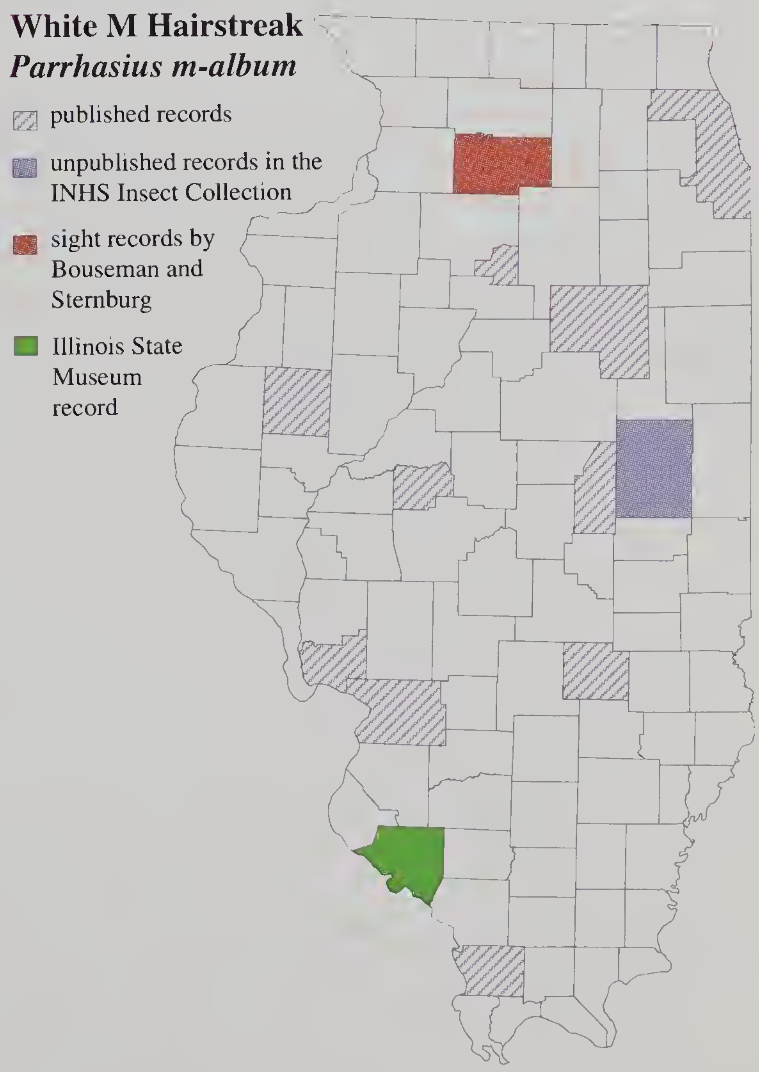
Male, White M Hairstreak, Piatt County, IL.



Male, White M Hairstreak, upperside, Champaign County, IL.



Male, White M Hairstreak, underside, Champaign County, IL.


White M Hairstreak
Parrhasius m-album
▨ published records
🟪 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg
🟩 Illinois State Museum record

Gray Hairstreak — Lycaenidae, Theclinae

Strymon melinus Hübner

Description: Wingspan 1.1–1.3 in. Blue-gray on the upperside, pale gray on the underside. Postmedian line on underside of both wings, inwardly margined with orange on hindwing. Orange spot with black pupil near hindwing tails, on both upper- and undersides.

Similar Species: The Northern Hairstreak has postmedian line on the underside with white margin and the ground color darker. Its males have an androconial pterostigma on the upperside of the forewing, which is lacking in the Gray Hairstreak.

Habitat: A butterfly of open and weedy areas, vacant lots, cultivated areas, gardens, and margins of wooded areas.

Natural History: Bivoltine in northern Illinois, possibly multivoltine in the south. The species is polyphagous, with larval hosts including mallows (*Hibiscus* spp.), hops (*Humulus* spp.), cultivated beans (*Phaseolus* spp.), knotweeds (*Polygonum* spp.), hawthornes (*Crataegus* spp.), and other plants. Legumes and mallows are favored. The larvae feed on the seed pods, seeds, and fruits. The species overwinters as pupae. Adults take nectar from a wide variety of plants, including goldenrod, asters, milkweeds, clovers, dogbane, and others.

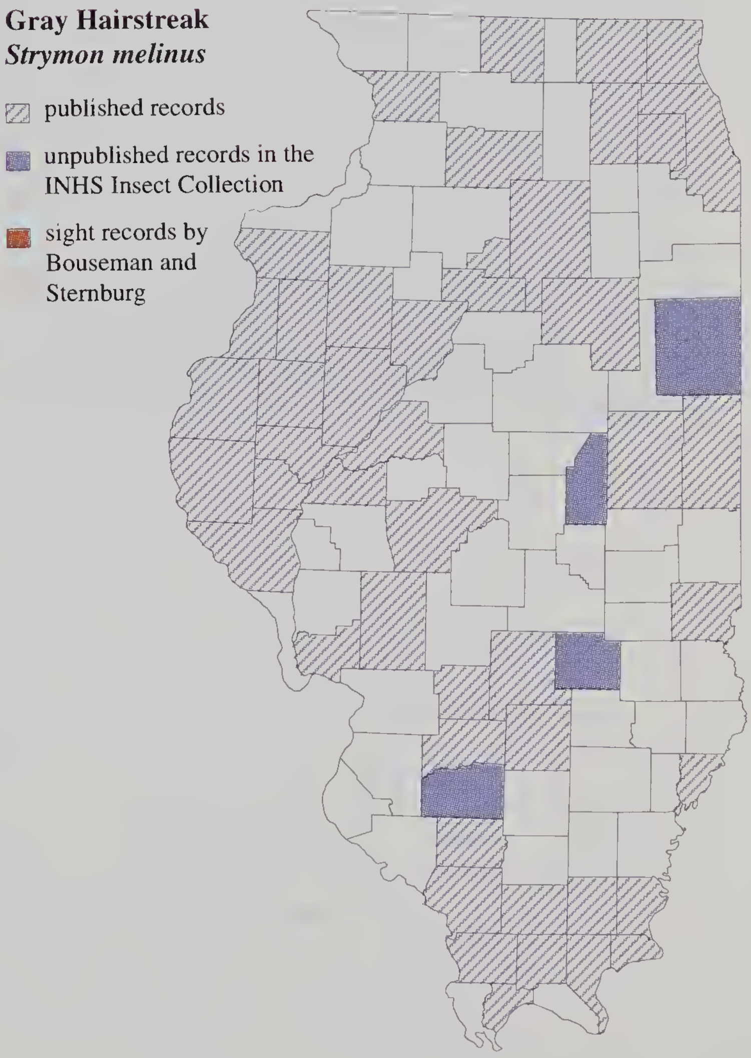
Status: Rare to uncommon in northern Illinois, where it may not survive the winter. The species becomes common in southern Illinois. Occasionally the Gray Hairstreak is a pest of cultivated garden beans, especially in the south.

Remarks: Illinois populations belong to the subspecies *S. m. humuli* (Harris).

Male, Gray Hairstreak, Champaign County, IL.

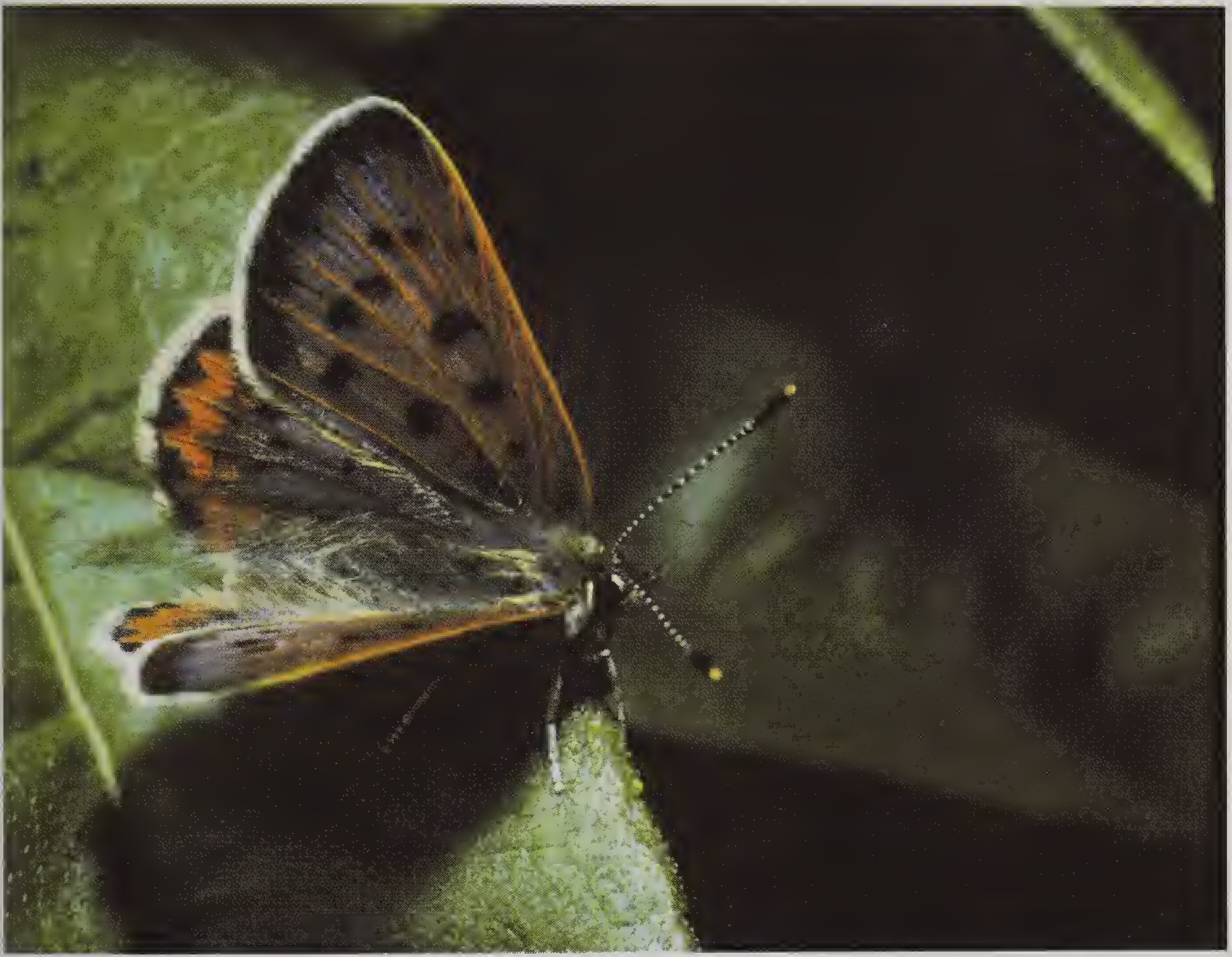
Male, Gray Hairstreak, Champaign County, IL. Butterfly has bird damage.

Male, Gray Hairstreak, Vermilion County, IL.


Gray Hairstreak
Strymon melinus
▨ published records
🟪 unpublished records in the INHS Insect Collection
🟧 sight records by Bouseman and Sternburg

Subfamily Lycaeninae: Coppers

These are often a brilliant coppery color, or orange, with many black spots over the entire wing surface. The coppery color of many is responsible for the common name “copper.” Male coppers perch, or sometimes patrol in search of females. Both sexes visit flowers found in their habitat. Coppers are found in open areas and are not forest insects. They frequently rest on plants and are best found by jarring the branches. The startled insect will fly out and usually return to perch again. At rest, coppers often hold the wings partially open. Illinois has four species.



Male, Purplish Copper basking, Lee County, IL.

Bronze Copper — Lycaenidae, Lycaeninae

Lycaena hyllus (Cramer)

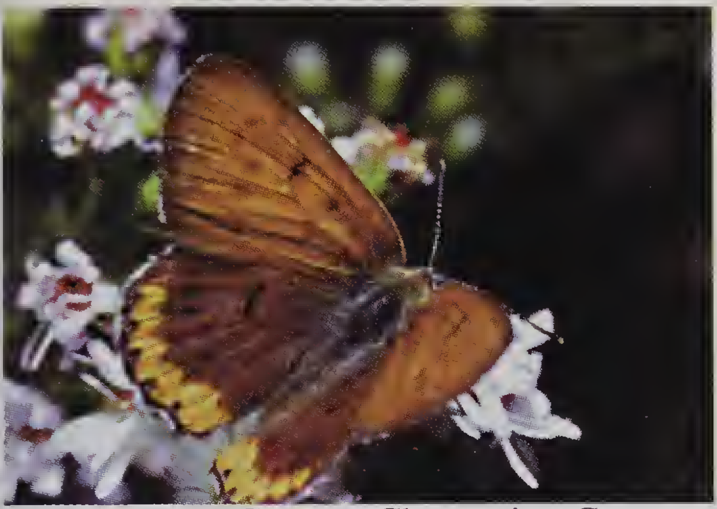
Description: Wingspan 1.2–1.4 in. Sexually dimorphic. Upperside of male forewing brown with a purple reflection. In the female the forewing is orange with black spots and border. On the underside the sexes are alike. The forewing is orange with a light border and many black spots. The hindwing is whitish with many black spots and an orange border.

Similar Species: None, although the upperside of the much smaller American Copper is suggestive of the female Bronze Copper. Females of the Purplish Copper are similar also. However, the underside of the Bronze Copper is distinctive.

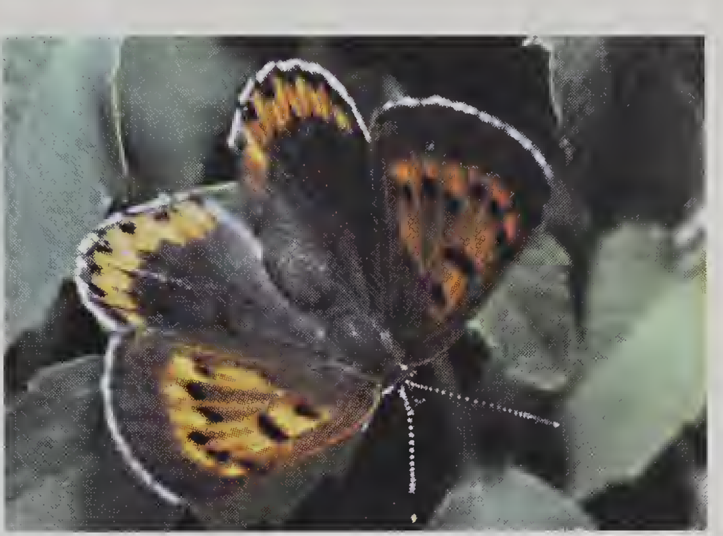
Habitat: Found in meadows, marshes, stream and pond sides. Occurs in local populations where the larval hosts occur. These are all semi-aquatic or moist-area docks, *Rumex* spp., and knotweeds, *Polygonum* spp. A good indicator species, but not a food for the species, is blue flag.

Natural History: Winter is passed in the egg stage. First-generation adults appear in June and July. The second generation flies in August and September. Males perch awaiting females. Females lay their eggs singly on species of *Rumex* and *Polygonum* that are found in moist to wet areas. Larvae feed on the leaves. Adults nectar at plants growing in the same area. Knotweeds and milkweeds are especially favored.

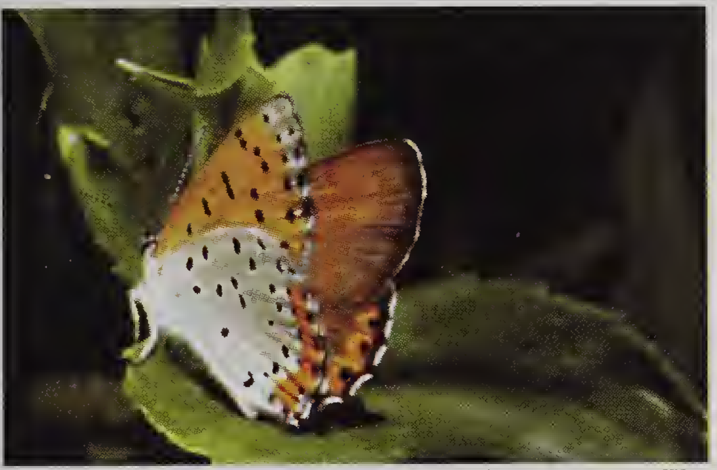
Status: Permanent breeding resident. Widespread but very local. Scarce to common.



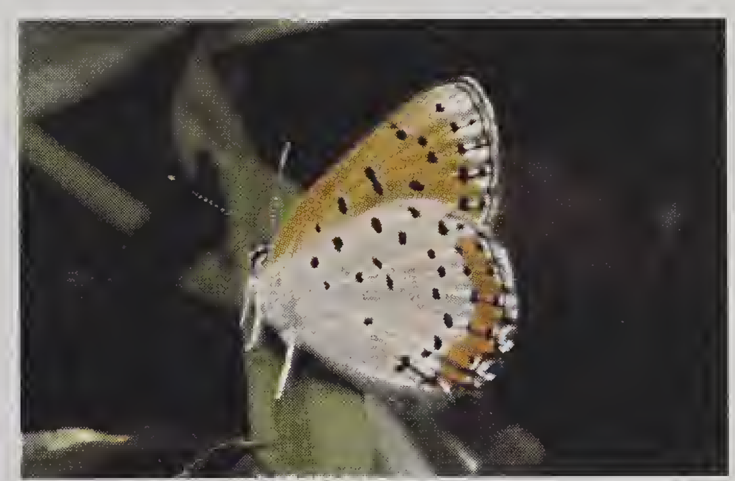
Male, Bronze Copper, Champaign County, IL.



Female, Bronze Copper, Champaign County, IL.



Male, Bronze Copper, Iroquois County, IL.



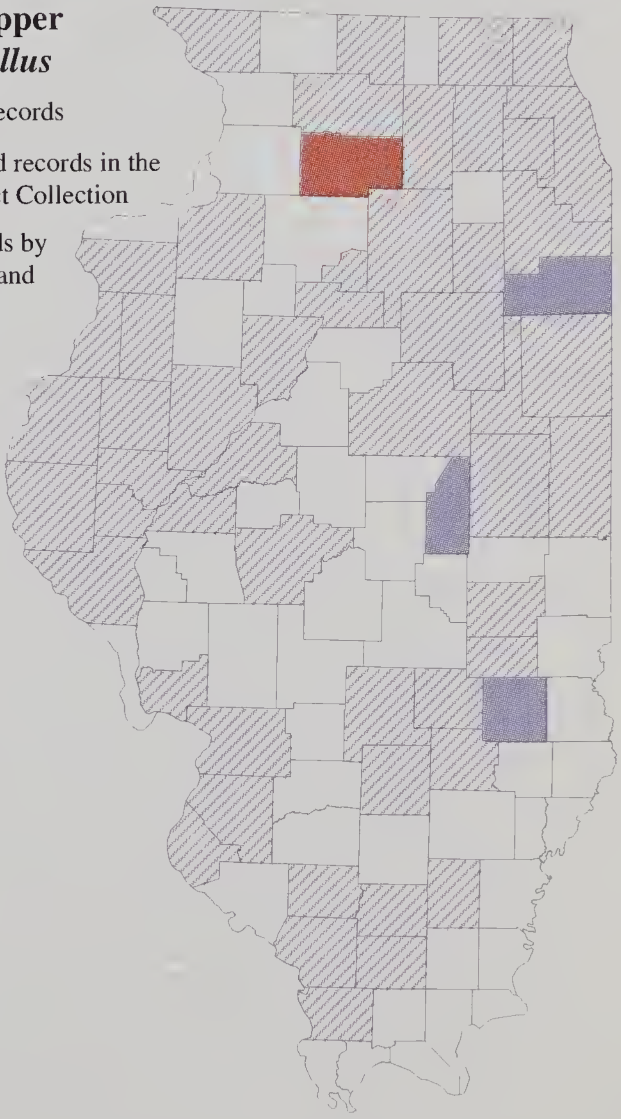
Bronze Copper, Iroquois County, IL.

Bronze Copper
Lycaena hyllus

▨ published records

🟪 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg



Gray Copper Lycaenidae, Lycaeninae

Lycaena dione (Scudder)

Description: Wingspan 1.25–1.75 in. Sexually dimorphic. Upperside dark brownish gray with hindwing margin of females orange and black. Males have the orange margin greatly reduced. Underside grayish white with typical copper pattern of black spots and the hindwing with an orange-red border.

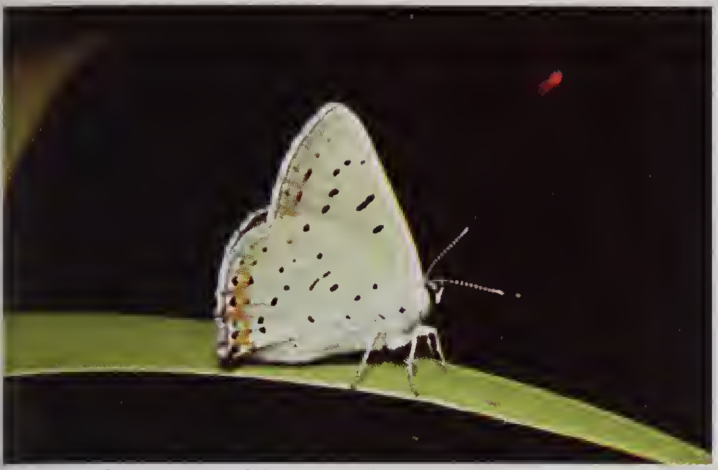
Similar Species: None in Illinois.

Habitat: Wet areas where the larval food plants grow (*Rumex* spp.). Weedy areas of fields, ditches, stream and pond margins.

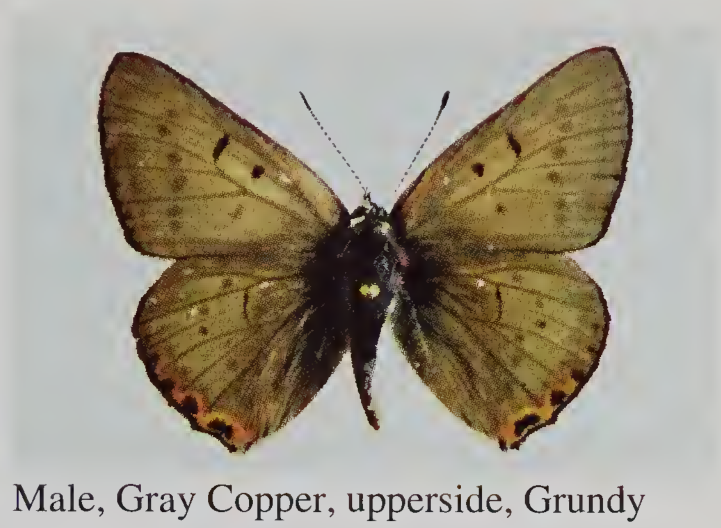
Natural History: Univoltine, adults in June and July. Males perch with wings partially open waiting for females. They also sometimes patrol. Females lay their eggs singly on docks. Larvae begin feeding the next spring. Adults nectar avidly on the flowers of dogbane, milkweeds, and other plants growing within the boundaries of the local population. Adults often bask with the wings partially open.

Status: Very local within its range. Populations may be found in wet areas where the larval hosts grow. The species is sometimes locally common, but usually somewhat scarce. Illinois is at the very eastern edge of the species' range. The species is typical of wet prairies, often found where there are stands of blue flag.

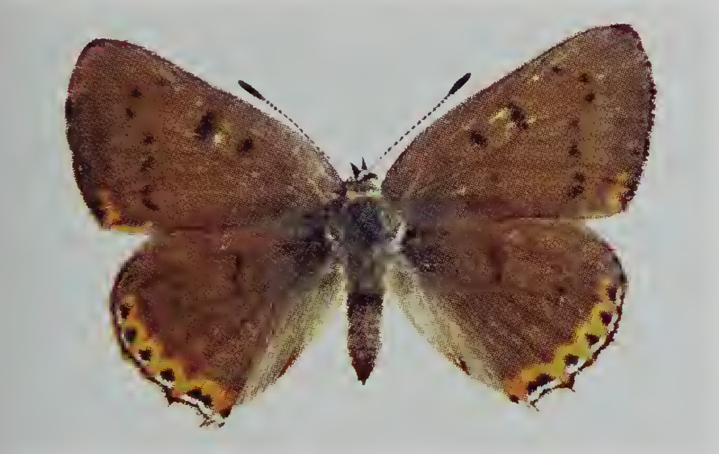
Remarks: Also known as the Great Copper.



Gray Copper, Champaign County, IL.



Male, Gray Copper, upperside, Grundy County, IL.



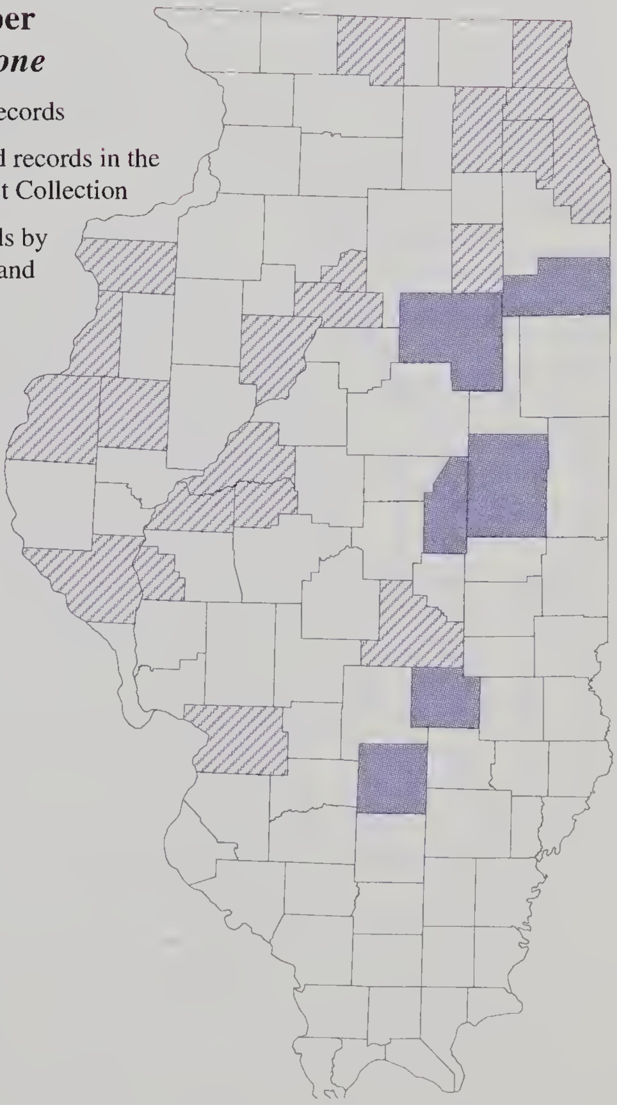
Female, Gray Copper, upperside, Mason County, IL.

Gray Copper
Lycaena dione

▨ published records

🟦 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg



Purplish Copper — Lycaenidae, Lycaeninae

Lycaena helloides (Boisduval)

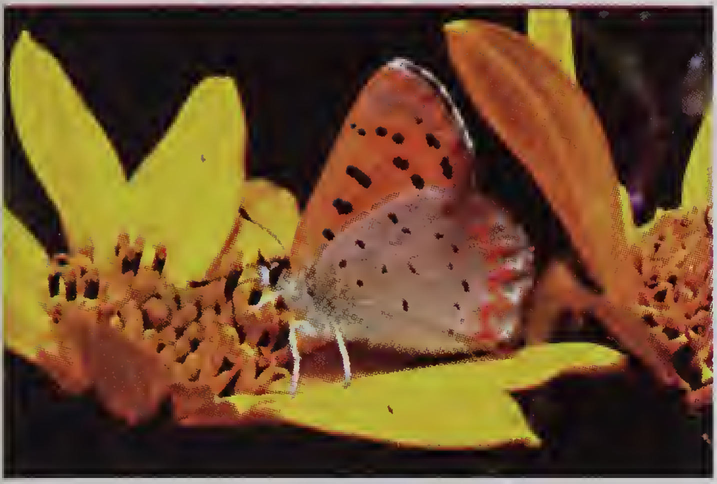
Description: Wingspan 1.2–1.5 in. Sexually dimorphic. Upperside of male has a purple iridescence over brown. The hindwing has an orange border with irregular black margin. The females have the upperside of the forewings orange with black spots and border, but no iridescence. The upperside of the female hindwing is orange and brown with an orange border similar to that of the male. On the underside, the sexes are alike, with the forewing orange, the hindwing a pale dull orange, and both wings with typical copper spotting, with a wavy red line on the hindwing margin.

Similar Species: The American Copper is redder and the Bronze Copper is much larger.

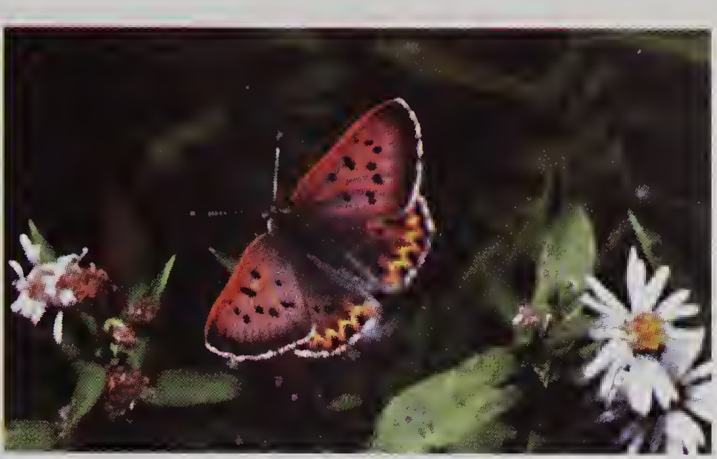
Habitat: Wet meadows, pond and lake edges, wet ditches, roadsides, and waste areas.

Natural History: Multivoltine, with two or more broods per year. The first generation appears in May, and the species flies until October. Larval hosts include leaves of docks (*Rumex* spp.) and knotweeds (*Polygonum* spp.). Adult males perch and patrol in search of females. Females lay eggs singly on the larval host. Eggs of the last generation overwinter. Adults nectar on plants within the boundaries of the population, including knotweeds, tickseeds, *Silphium* spp., thistles, and others. Both sexes bask with the wings partially open.

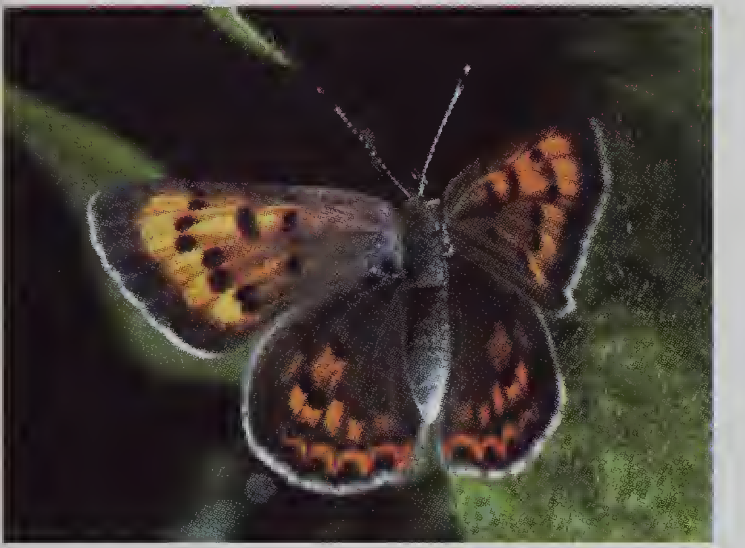
Status: Breeding resident of northern Illinois. Can sometimes be common, but it is often scarce. Occurs in local populations within the overall range.



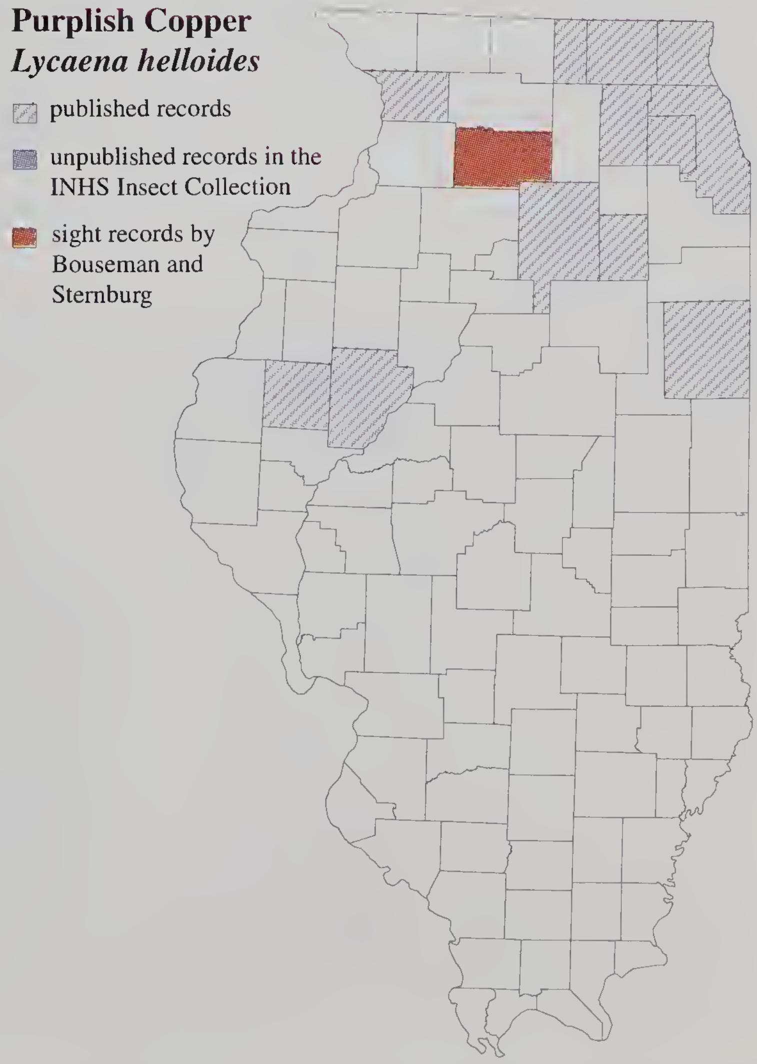
Purplish Copper, Lee County, IL.



Male, Purplish Copper, Lee County, IL.



Female, Purplish Copper, Lee County, IL.



Purplish Copper
Lycaena helloides

▨ published records
▨ unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

American Copper **Lycaenidae, Lycaeninae**

Lycaena phlaeas americana Harris

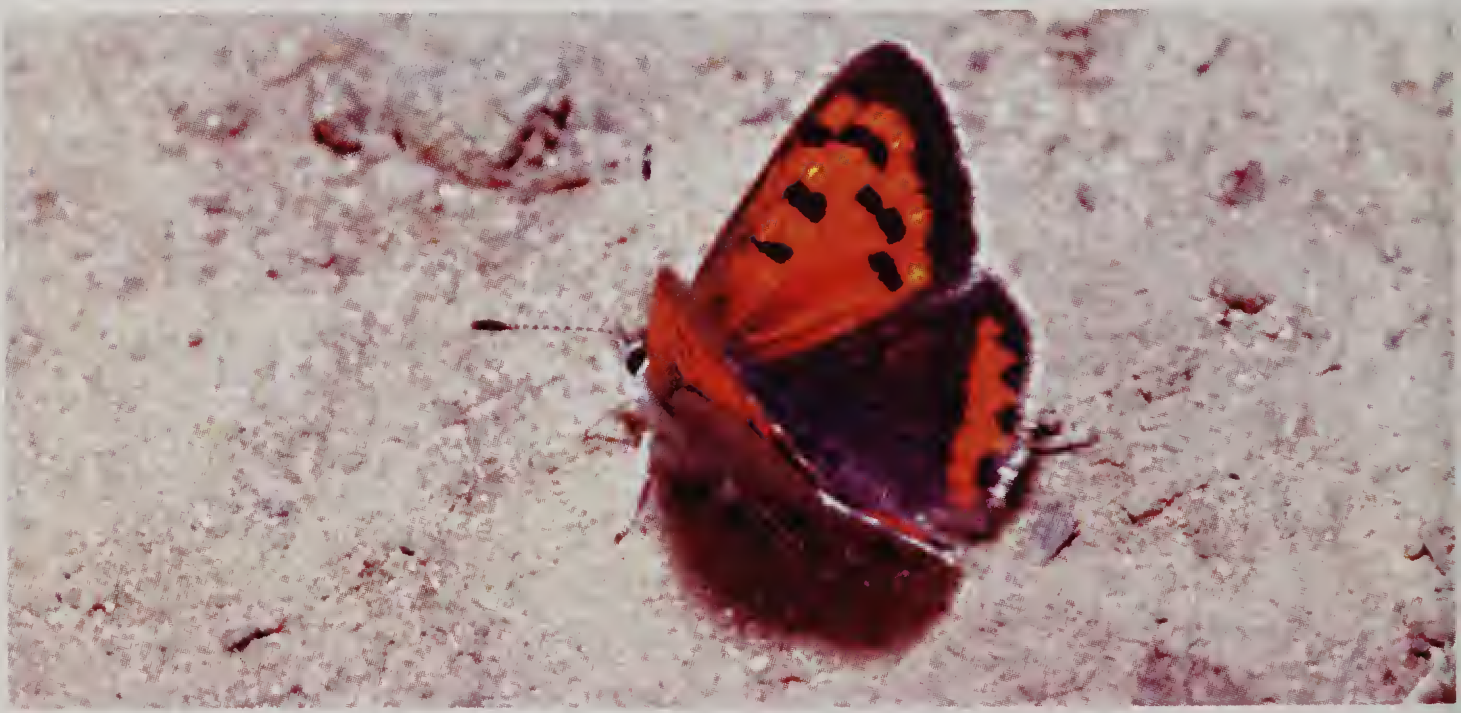
Description: Wingspan 1–1.3 in. Sexes similar. Upperside of forewing bright iridescent red with black spots and border. Hindwing brown with orange border. Underside of forewing red with black spots and dark brown border. Hindwing underside pale buff white with black spots and a wavy red submarginal line. Distinctive for its very bright red forewings.

Similar Species: Pattern of spots is similar in all coppers. Purplish Copper females are more orange. Bronze Coppers are much larger.

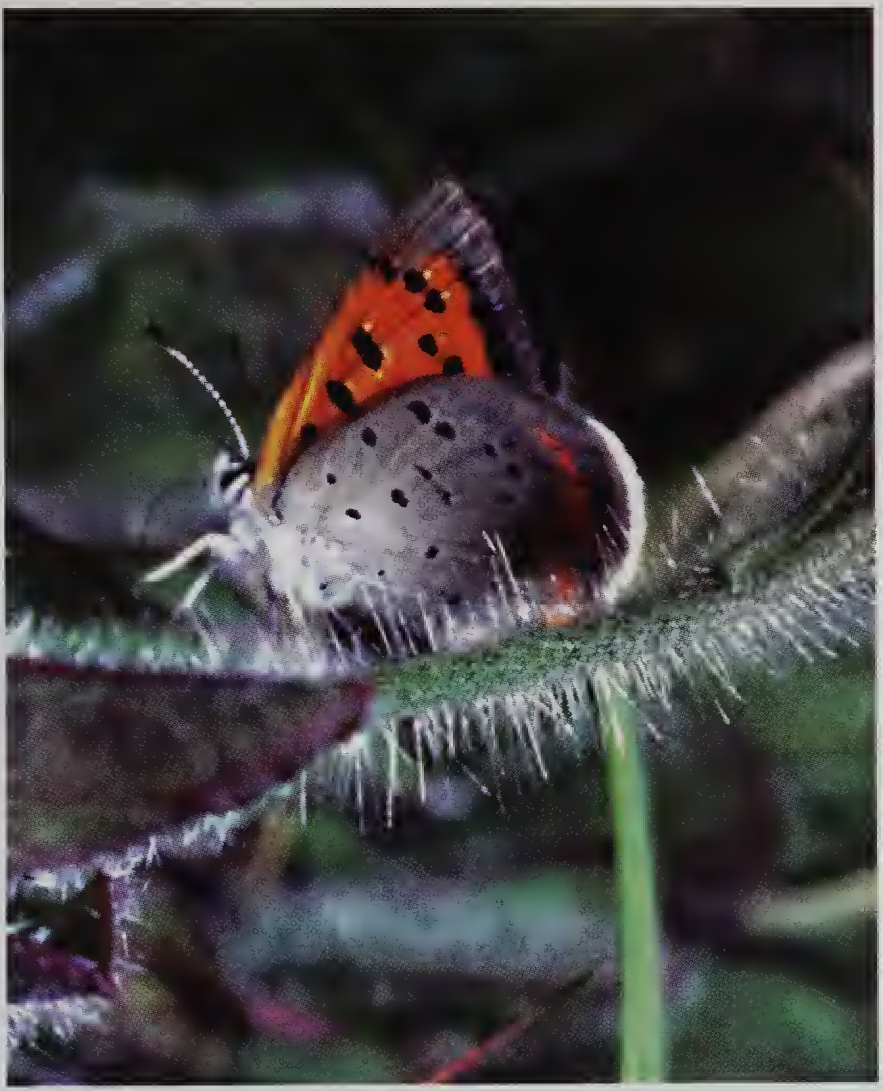
Habitats: Open sunny areas with low vegetation. Often visits gardens, lawns, mowed areas, bare ground.

Natural History: Multivoltine with three or more broods, the first appearing in May. Adults usually present all summer and into fall. Males perch awaiting passing females. Males will dart out at passing insects, quickly returning to their perch sites if they do not find females. Females lay eggs singly on sheep sorrel (*Rumex acetosella*) and curly dock (*Rumex crispus*). Both plant species are European introductions. For this reason, and because the American Copper is similar to the European form of the species, it is thought likely that the American Copper is an introduced species from Europe. Larvae feed on leaves of the host plants. Adults nectar on a variety of flowers, depending upon the season. In the summer and fall, native asters are favored.

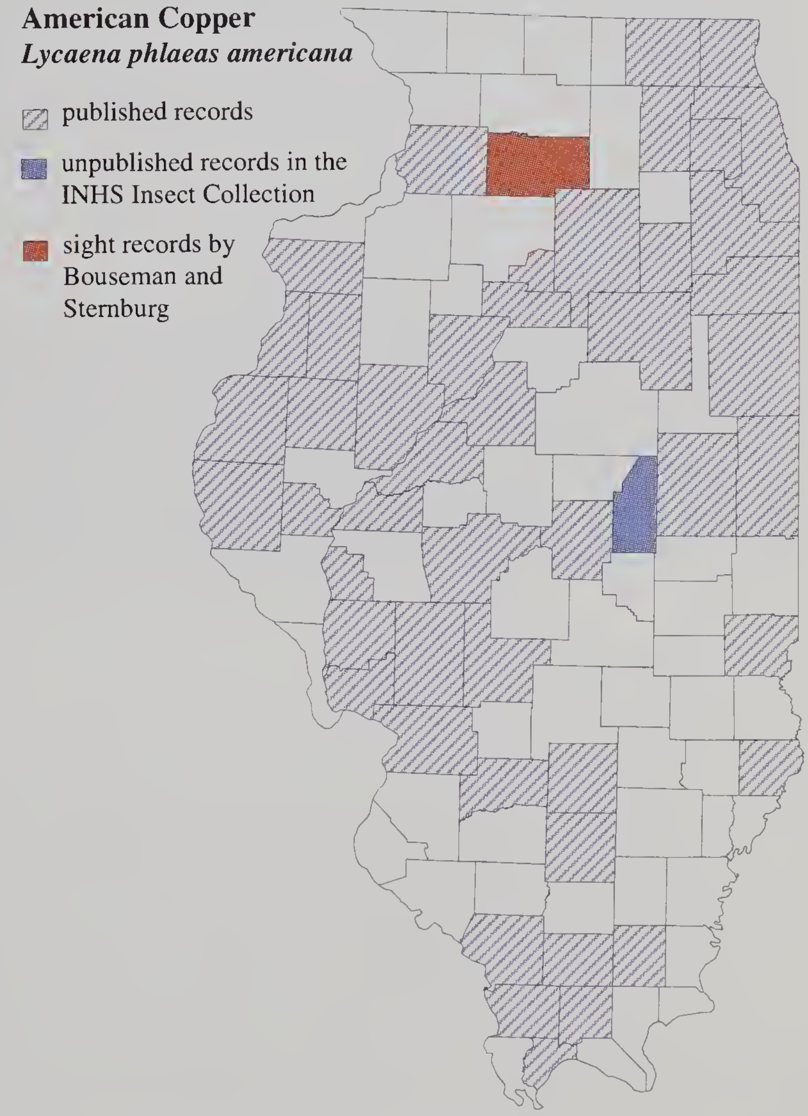
Status: Statewide breeding resident. Frequent to common in suitable habitats.



American Copper, Iroquois County, IL.

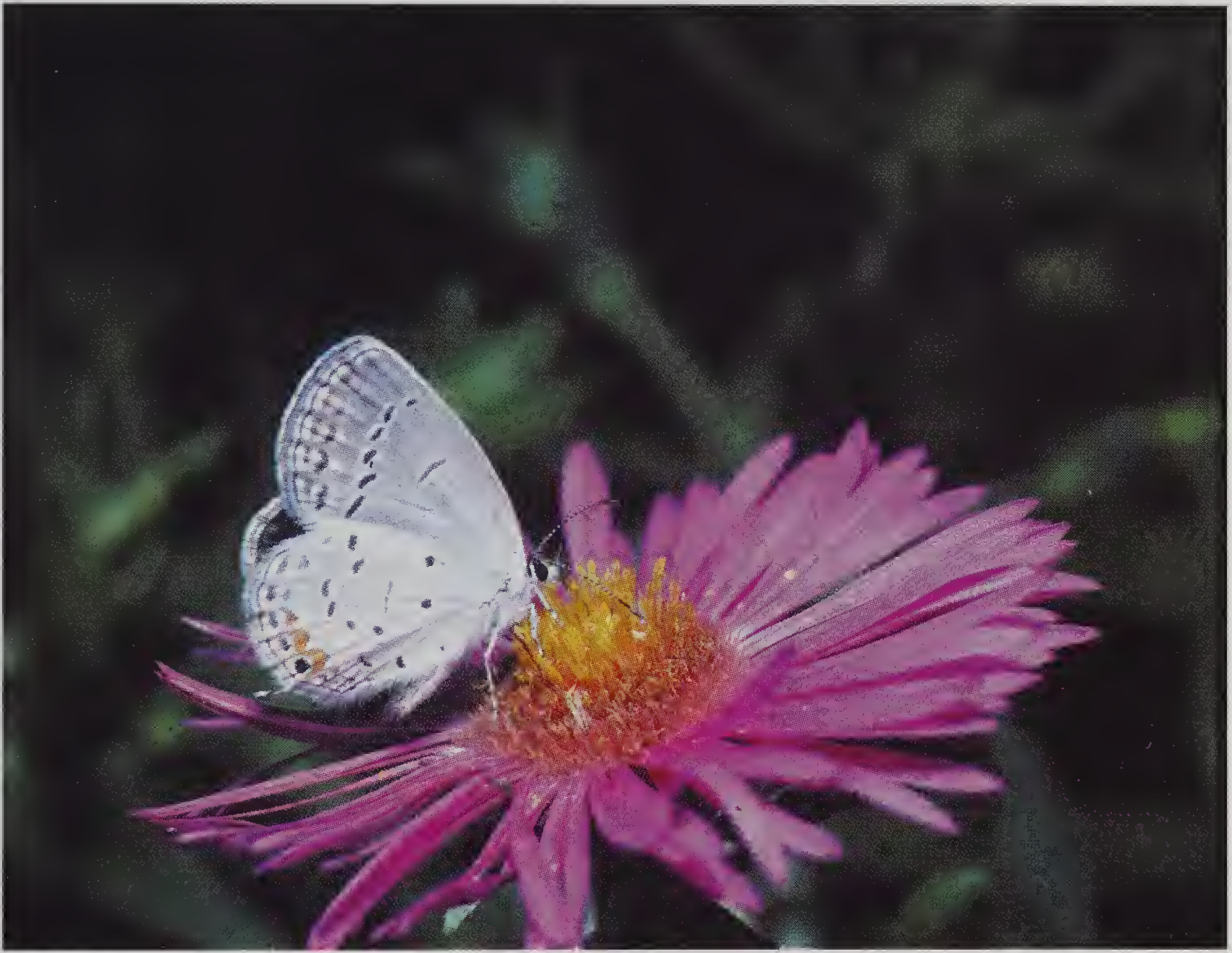


American Copper, Emmet County, MI.


American Copper
Lycaena phlaeas americana
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Subfamily Polyommatinae: Blues

Small patrolling species called blues. Most are a delicate, often very attractive shade of blue on the upperside. Some females are brown or black rather than blue, but the light gray or whitish underside give even these the appearance of blue in flight. Adults often rest with the wings partly spread. All are avid visitors to flowers, and many will be found taking moisture from damp ground. Their sluglike larvae are regularly tended by ants, attracted by the excretions from abdominal larval glands. Larvae of some feed upon the flower buds or developing seed pods rather than the leaves. Eight species occur in Illinois, although two are occasional visitors only.



Female, Eastern Tailed-blue nectaring, Champaign County, IL.

Marine Blue **Lycaenidae, Polyommatinae**

Leptotes marina (Reakirt)

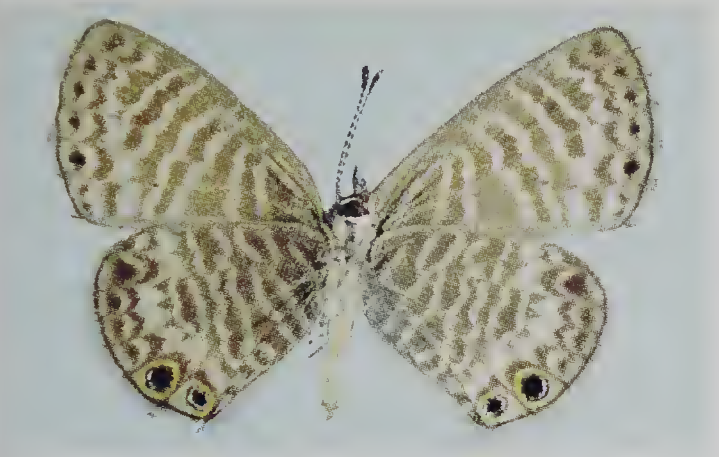
Description: Wingspan 0.6–1.2 in. Both sexes violet purplish blue on the upperside. On the underside, there are continuous bands of pale brown lines from the anterior margin of the forewing to the inner margin of the hindwing. There are two pale blue iridescent submarginal spots on the underside of each hindwing.

Similar Species: None in Illinois. It can be mistaken in flight for the common Eastern Tailed-blue.

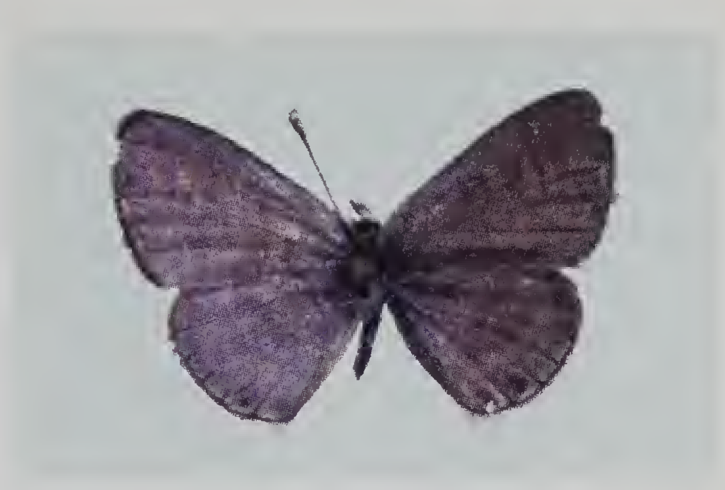
Habitat: Open areas. Roadsides. Along streams.

Natural History: Larval hosts are alfalfa, sweet pea, false indigo (*Baptisia* spp.), and other legumes. The species is common in Mexico and the southwestern U.S. It regularly migrates to the northern plains, and rarely to Illinois. Not known to breed in Illinois.

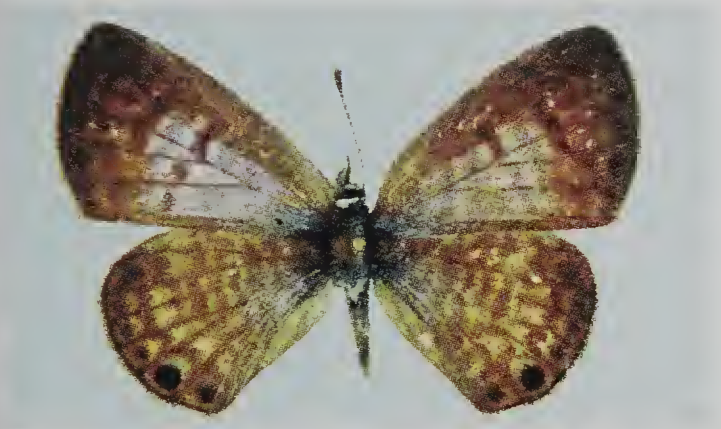
Status: A rare vagrant.



Female, Marine Blue. underside, Torrance County, NM.



Male, Marine Blue, upperside, Hidalgo County, NM.



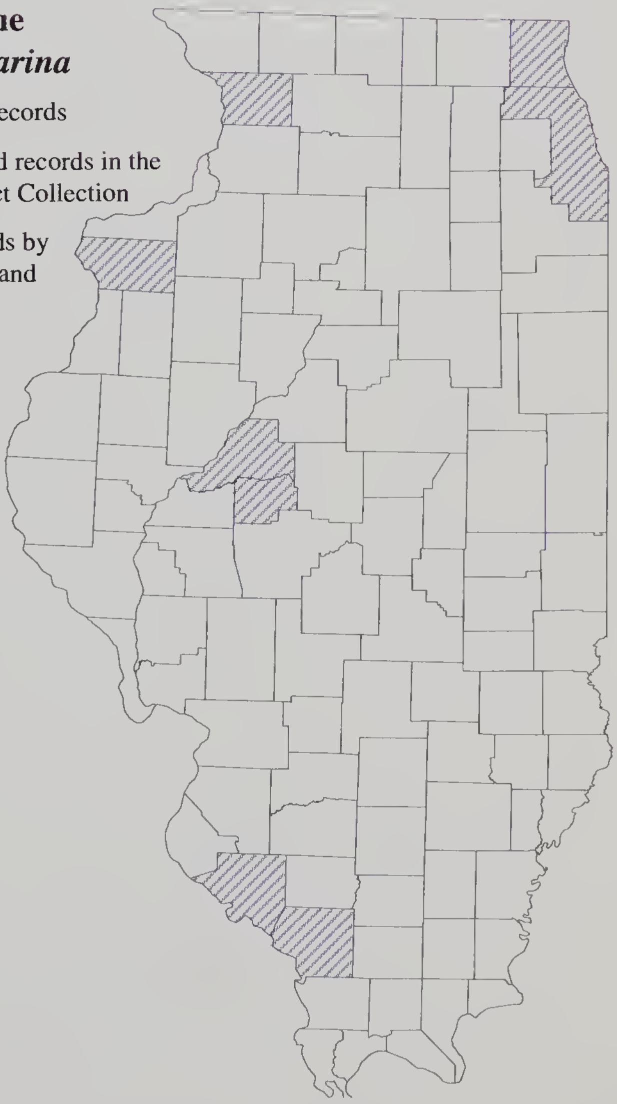
Female, Marine Blue, upperside, Torrance County, NM.

Marine Blue
Leptotes marina

▨ published records

🟦 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg



Reakirt's Blue — Lycaenidae, Polyommatinae

Hemiargus isola (Reakirt)

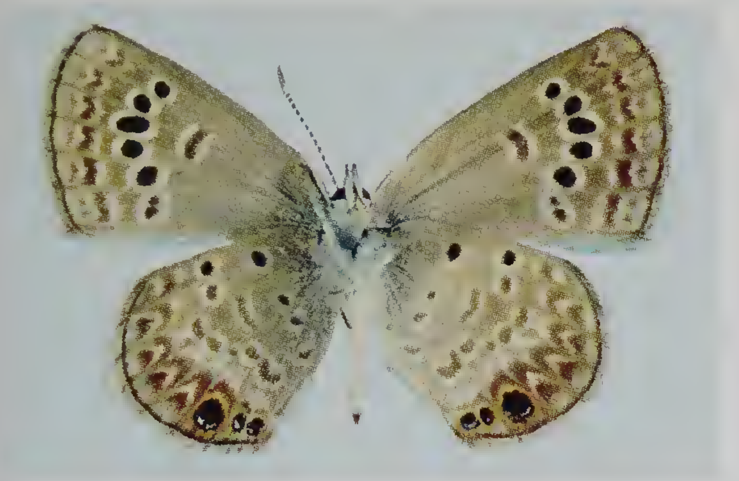
Description: Wingspan 0.75–1.2 in. Sexually dimorphic. Upperside of male violet-blue with dusky border. Female has less blue and more extensive marginal dusky shading. Underside of both sexes light gray with narrow darker lines, forewing with a row of black spots ringed with white.

Similar Species: None in Illinois, although in flight it can be mistaken for an Eastern Tailed-blue.

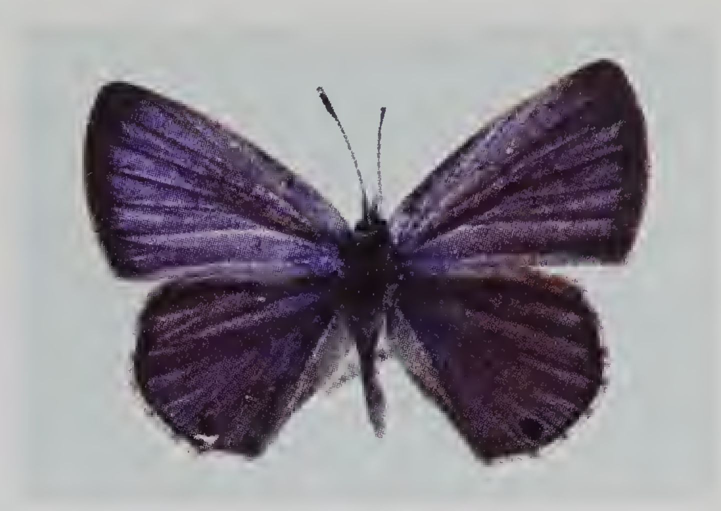
Habitat: Illinois grasslands and open fields.

Natural History: The species is an irregular migrant into Illinois, potentially with two or three generations. Males patrol in search of females. Eggs are laid on a variety of legumes, including sweet clover. The larvae feed on the buds and flowers. Adults nectar on various flowers, including sweet clover.

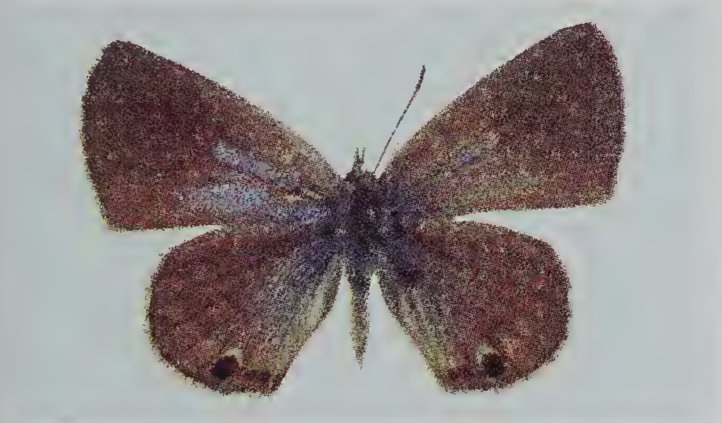
Status: An irregular migrant from the south and southwest. Rarely a temporary breeding resident. Cannot survive an Illinois winter.



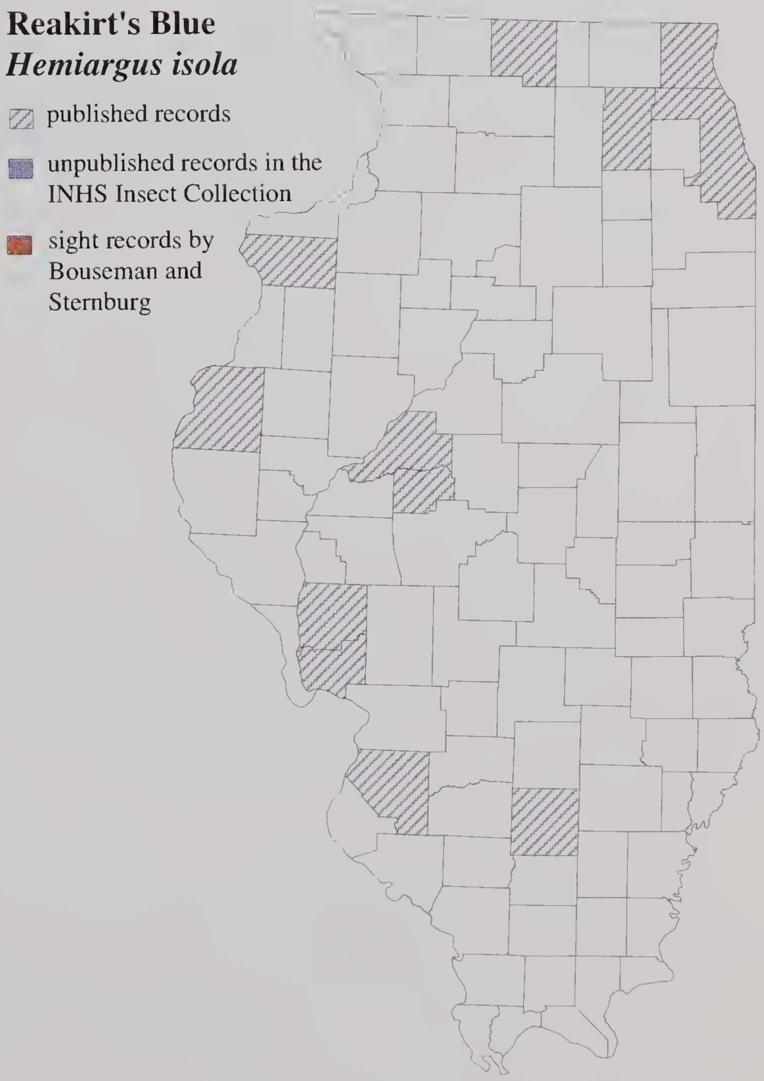
Female, Reakirt's Blue, underside, Douglas County, NE.



Male, Reakirt's Blue, upperside, Larimer County, CO.



Female, Reakirt's Blue, upperside, Douglas County, NE.



Reakirt's Blue
Hemiargus isola

▨ published records

🟪 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg

Karner Blue Lycaenidae, Polyommatinae

Lycaeides melissa samuelis Nabokov

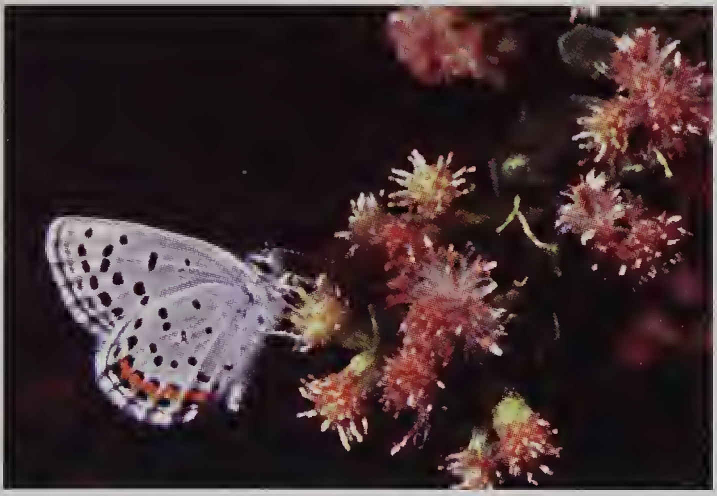
Description: Wingspan 1–1.4 in. Sexually dimorphic. Males are dark blue on the upperside. Females are brown with a band of orange spots on border of hindwing. On the underside, the sexes are alike, gray with many black spots, a solid black marginal line on the wing borders, and a broken row of orange spots on the hindwing

Similar Species: None in Illinois.

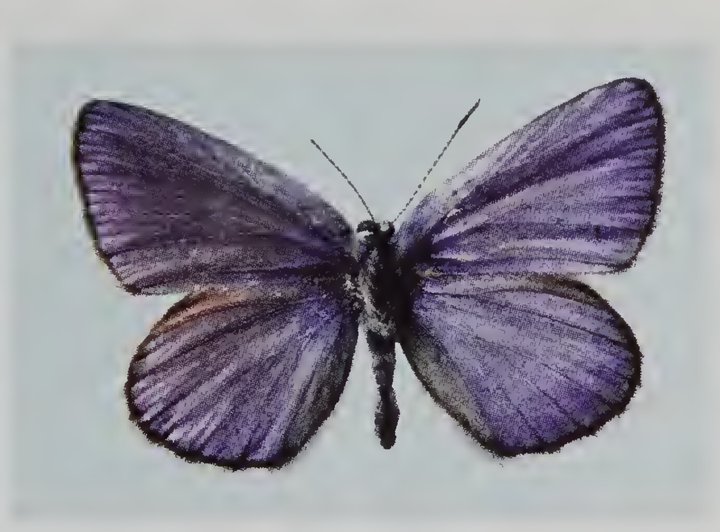
Habitat: This eastern subspecies of *L. melissa* is limited to sites where lupine grows. Typically in open pine or oak barrens or sand dunes.

Natural History: Bivoltine, the first generation flying in late May, the second in July and August. The eggs are the overwintering stage. Larvae of this eastern subspecies feed primarily on the leaves of lupine (*Lupinus perennis*). In the western states, other subspecies are common and feed on a large variety of legumes. Larvae are avidly attended by ants, which are attracted by "honey glands" and tentacles of the larvae. Males patrol near the larval hosts in search of females. Eggs are laid singly either on the larval host or nearby.

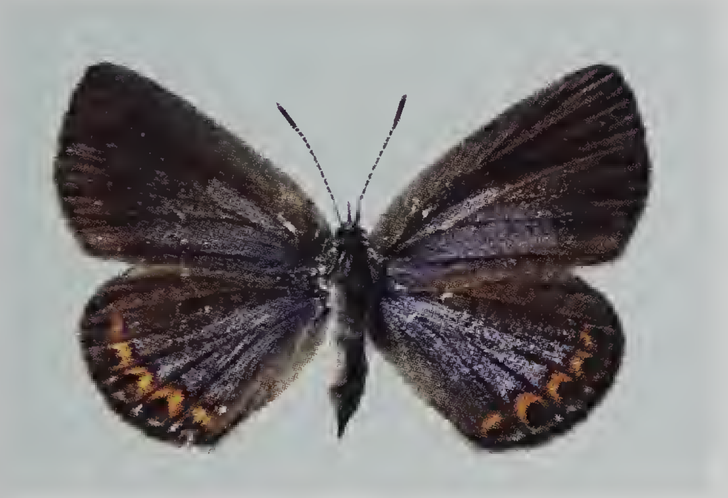
Status: Rare in Illinois. Permanent populations absent. The few records appear to be due to vagrants, and perhaps temporary populations. The species occurs in nearby northern Indiana and in central Wisconsin. It is always local, found only in restricted populations. Listed as federally and state endangered.



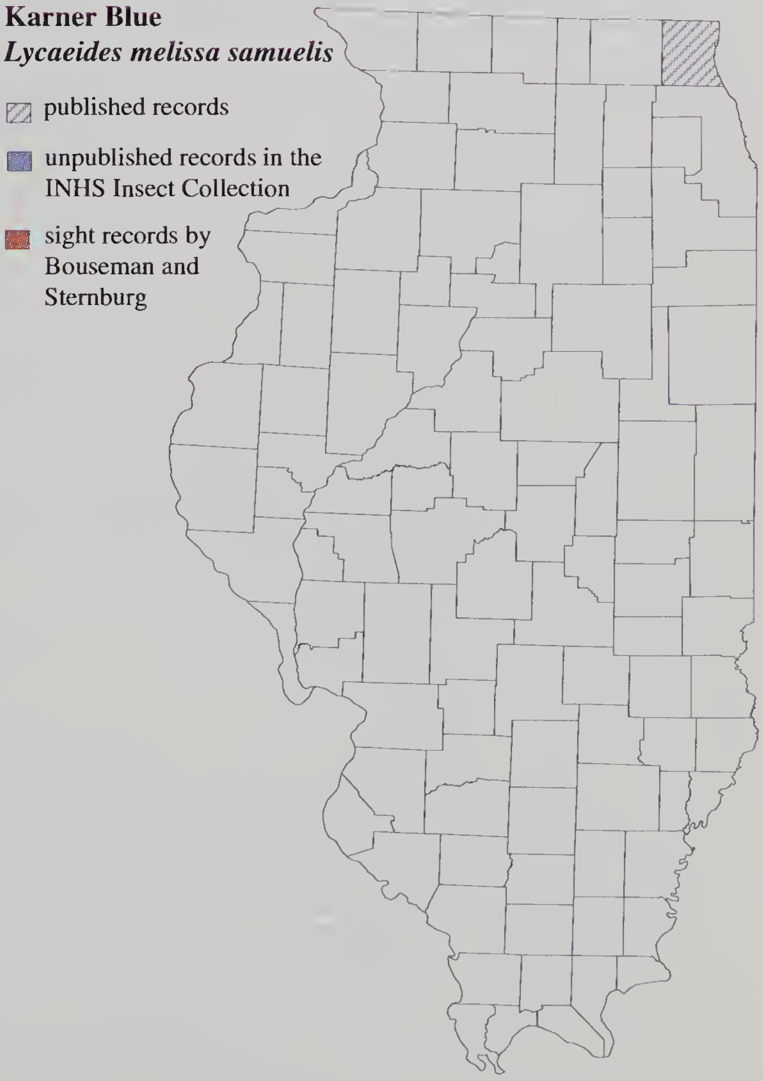
Karner Blue, Ogemaw County, MI. *Photo by Michael R. Jeffords.*



Male, Karner Blue, upperside, Jackson County, MN.



Female, Karner Blue, upperside, Lake County, IN.



Karner Blue
Lycaeides melissa samuelis
▨ published records
🟪 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Eastern Tailed-blue Lycaenidae, Polyommatinae

Everes comyntas (Godart)

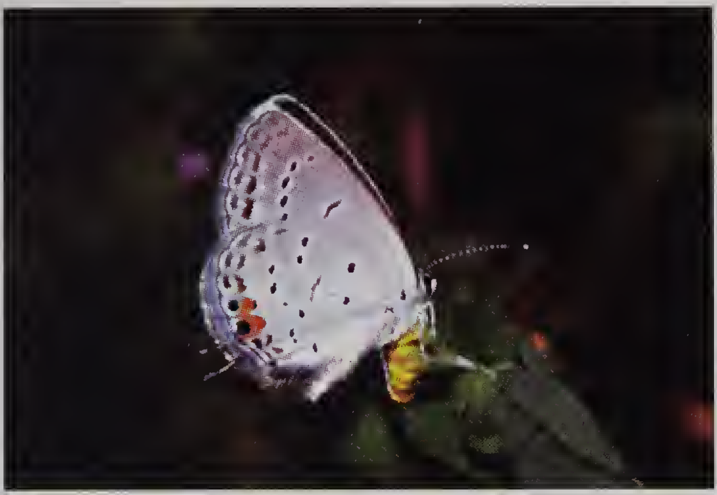
Description: Wingspan 0.75–1.0 in. Sexually dimorphic. Seasonal differences occur. Males are a lighter iridescent blue on the upperside and females have some blue on the upperside in spring specimens. Summer males are iridescent dark blue on the upperside; the females are brown with little or no blue on the upperside. Spring specimens of both sexes are lighter on the underside than summer specimens. All have two orange lunules (crescent moon-shaped markings) on the underside, and many black spots. Each hindwing has a delicate tail.

Similar Species: None of the other blues of Illinois have tailed hindwings. In flight the various tropical blues that enter the state as vagrants can be mistaken for the Eastern Tailed-blue. The tailed hairstreaks are larger, marked differently on the underside, and the few blue species are much more metallic.

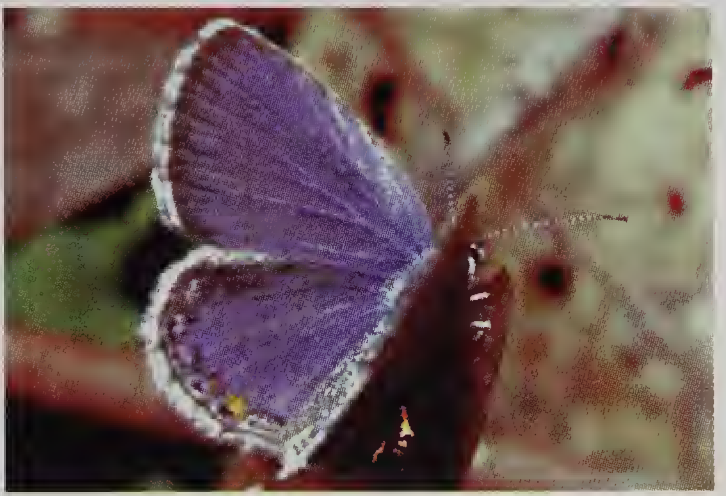
Habitat: The species can be found in almost all habitats, except forest, and even there it may be present in open woods. It is a creature of open areas everywhere, from urban to rural.

Natural History: Multivoltine, with three or more broods per season. Mature larvae overwinter, pupate in the spring, and appear as adults in April. Adults can be found from April to October. Males patrol with a slow bouncing flight over low ground in search of females. Eggs are laid singly on flower buds of the larval hosts. Larvae feed on the flower buds and flowers. A variety of legumes are consumed, including clovers, vetches, and others. Adults nectar on a wide variety of plants, depending on the season, including clovers, milkweeds, dogbane, asters, and others. Males also take moisture from damp soil, often gathering in numbers. Both sexes often bask with wings partly spread.

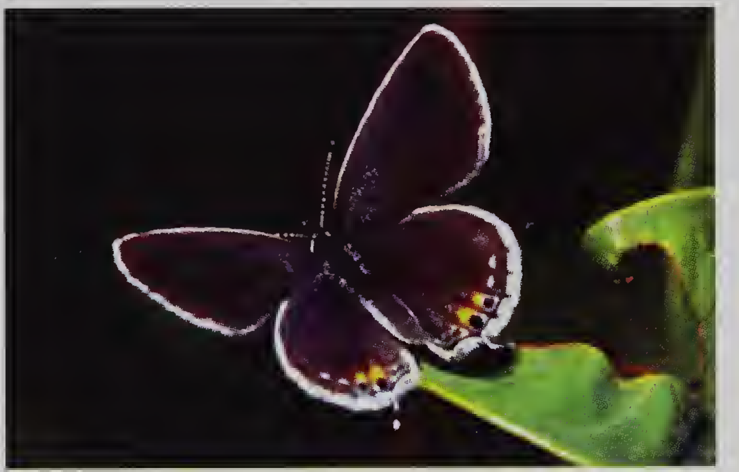
Status: Permanent breeding resident, occurring statewide in most open areas. It is common to abundant.



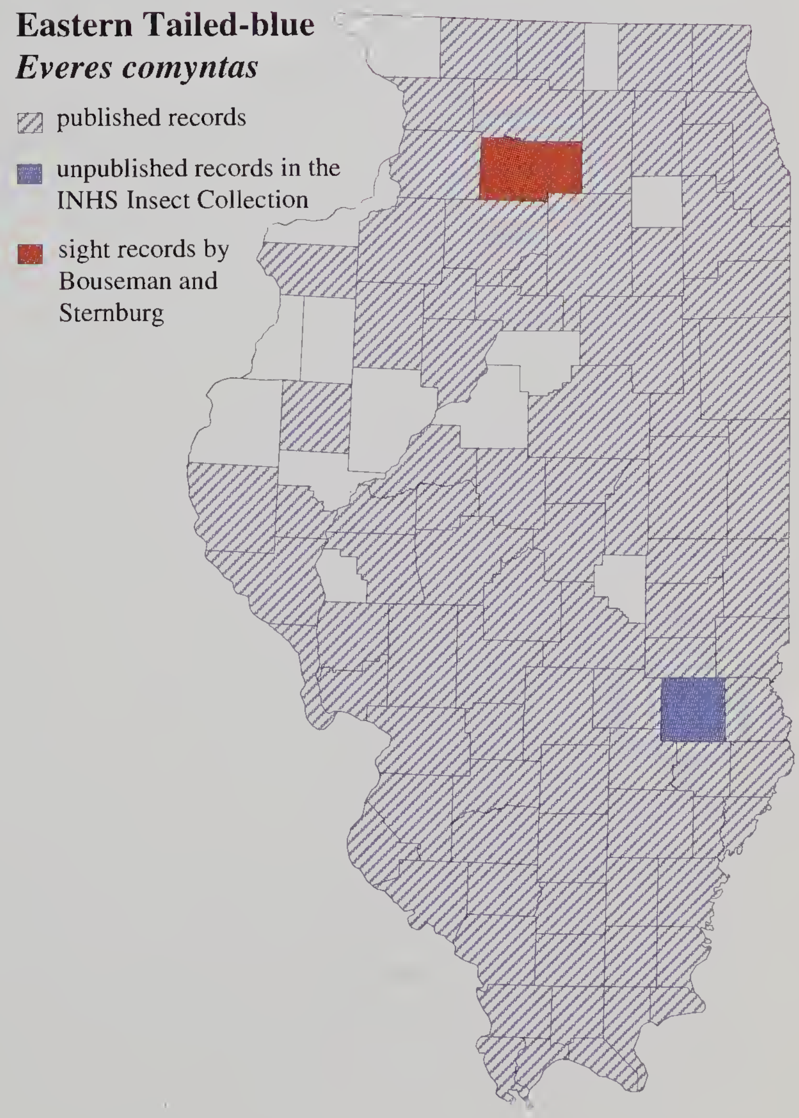
Eastern Tailed-blue, Champaign County, IL.



Male, Eastern Tailed-blue, Piatt County, IL.



Female, Eastern Tailed-blue, Champaign County, IL.


Eastern Tailed-blue
Everes comyntas
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Silvery Blue Lycaenidae, Polyommatinae

Glaucopsyche lygdamus couperi Grote

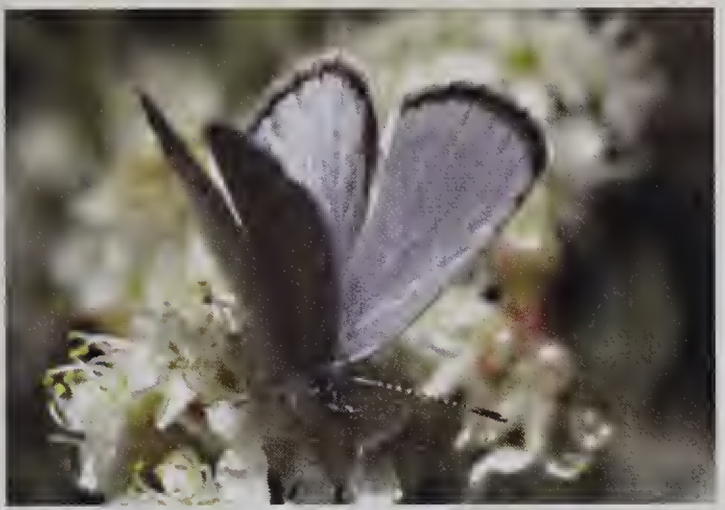
Description: Wingspan 0.9–1.2 in. Sexually dimorphic. Male is iridescent silvery blue on the upperside. Female is duller blue with the margins dark. On the underside, both sexes are pale gray with a prominent submarginal row of black spots with white margins.

Similar Species: None in Illinois. The underside is distinctive within our fauna.

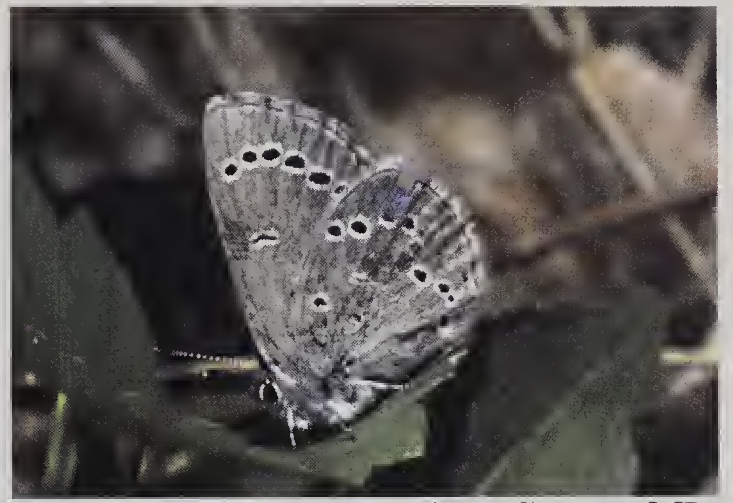
Habitat: Open woods and adjacent fields.

Natural History: Univoltine, with adults present from mid-April through May. They nectar at blueberries, dandelions, strawberries, and other early flowers. Eggs are laid on vetches (*Vicia* spp.) of several kinds, and on peavine (*Lathyrus venosus*), white sweet clover, and even alfalfa. Larvae feed on the flowers. They are often tended by ants, which are attracted by the substance produced by glands on the last abdominal segment. Pupation is at the base of the food plant where the pupa overwinters.

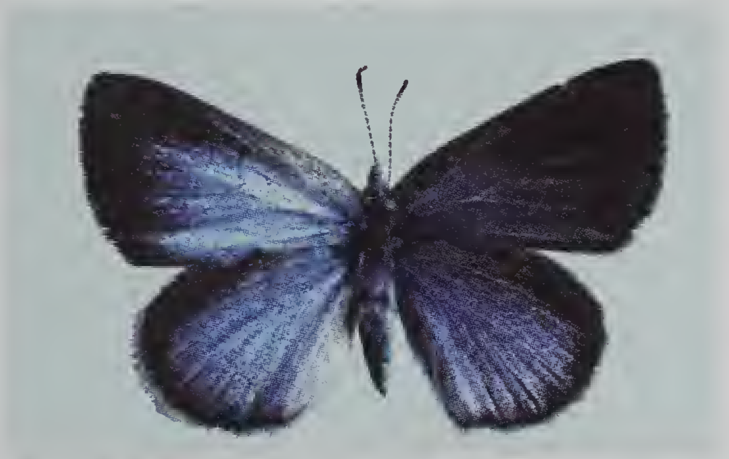
Status: Uncommon in Illinois. Restricted to northeastern counties, and rarely to western counties.



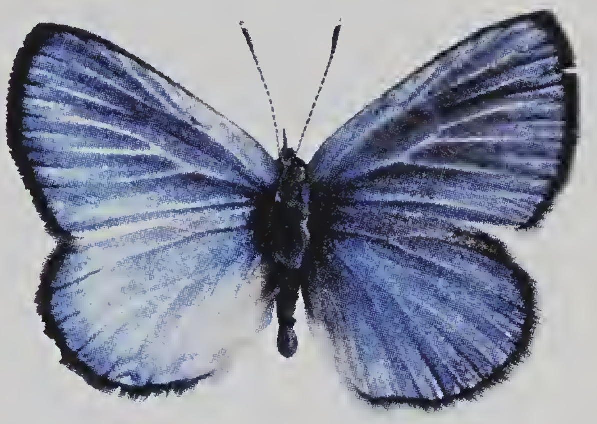
Male, Silvery Blue, Mackinac County, MI.



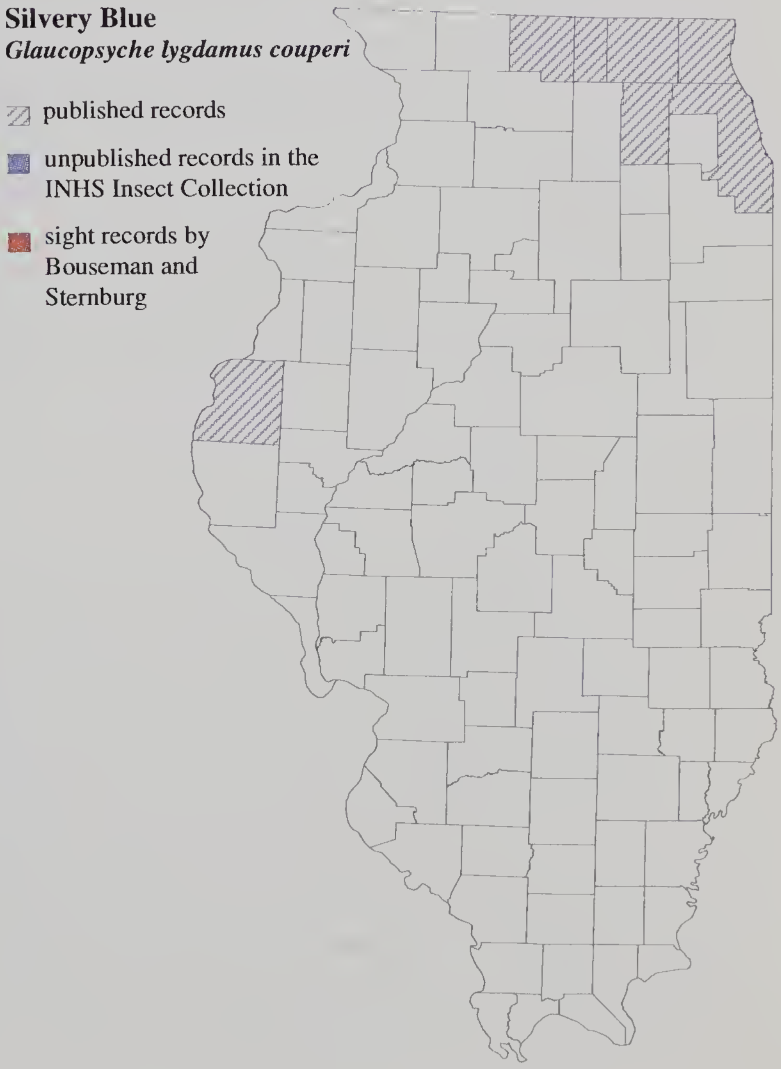
Male, Silvery Blue, Mackinac County, MI.



Female, Silvery Blue, upperside, Mackinac County, MI.



Male, Silvery Blue, upperside, Mackinac County, MI.



Silvery Blue
Glaucopsyche lygdamus couperi

▨ published records

🟪 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg

Spring/Summer Azure Lycaenidae, Polyommatinae

Celastrina ladon (spring), *C. neglecta* (summer)

Description: Wingspan 1.0–1.25 in. Sexually dimorphic with seasonal variation. Multivoltine. The Spring Azure is darker and grayer on the underside than the Summer Azure. Summer Azures are larger and have a considerable amount of white, especially the females. It is likely that the Illinois azure population is a complex of several species, as is true for Michigan and other states.

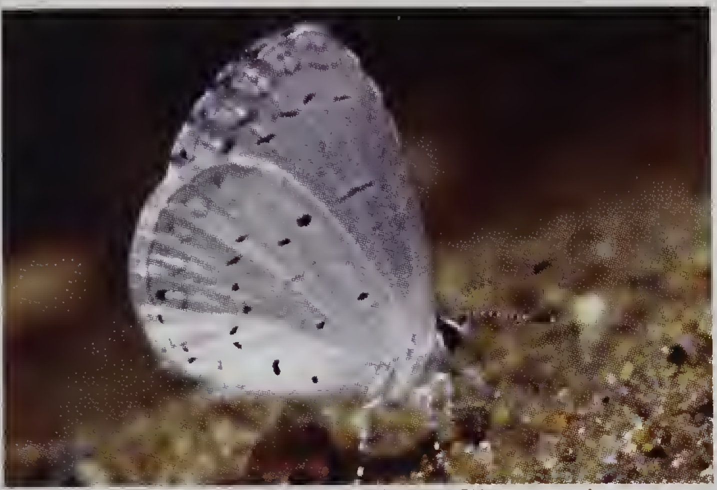
Similar Species: Any of the other blues from a distance. Each has distinctive underside markings and can be recognized without difficulty. The Spring Azure can be confused with the Dusky Azure, whose males are dark, not blue, on the upperside. The females are also darker than the Spring Azure. Dusky Azures will be found only where good stands of the larval host, goat's-beard (*Aruncus dioicus*), occur.

Habitat: Forests, forest edges, wooded areas, along woody stream banks, parks, urban and suburban areas where there are trees and gardens.

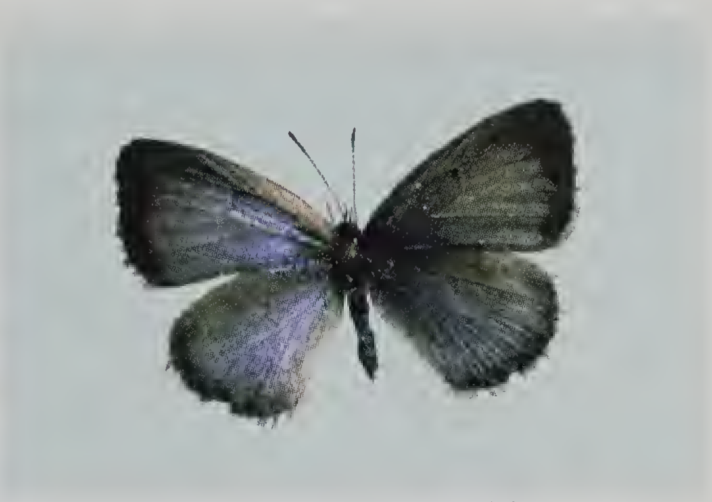
Natural History: The dark adults of the Spring Azure are very early, often the first butterfly seen in the spring. Males of both species patrol in search of females most of the day, usually high over bushes and even up in the trees. Females lay their eggs among or on the flowers of larval host plants. The plant species consumed varies over the seasons, coinciding with those species that are in flower. The species (complex) is multivoltine. Plants serving as larval hosts include, among others, the following: dogwoods, wild black cherry, New Jersey tea, viburnums, sumacs, and others. Summer Azures are found more widely distributed, not as confined to wooded areas as Spring Azures. Adults of both sexes nectar at many flower species. Males often gather in groups at damp sites. Azures of both species often fly high into trees.

Status: Common statewide. Often seen in gardens and city parks.

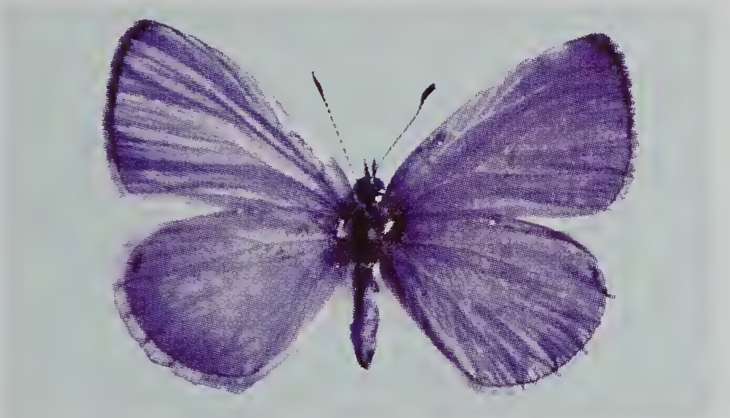
Remarks: Recently the problem of distinguishing Spring from Summer Azures has been at least partially resolved, with the elevation to species rank of a number of varietal forms. Two of these occur in Illinois. These are the Spring Azure, *C. ladon* (Cramer), a univoltine dark bright blue early spring species, and the Summer Azure, *C. neglecta* (W.H. Edwards), a light blue and white multivoltine species in flight from late spring to fall. A preliminary examination of the azures in the INHS Insect Collection indicates that the Spring Azure is present in Lake, Sangamon, Piatt, Champaign, Vermilion, and Pope counties. No doubt it has been overlooked elsewhere. We suspect it is statewide. The very common Summer Azure has been collected from much of the state and accounts for all or most of the distributional records shown on our map. For further information see Nielsen (1999) and Covell (1999).



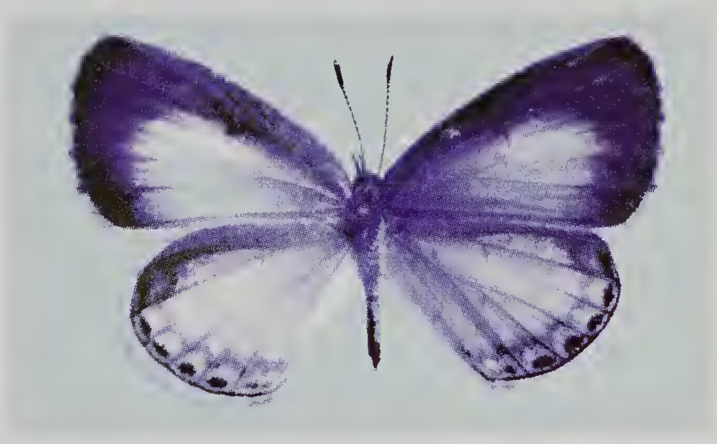
Summer Azure, underside, Champaign County, IL.



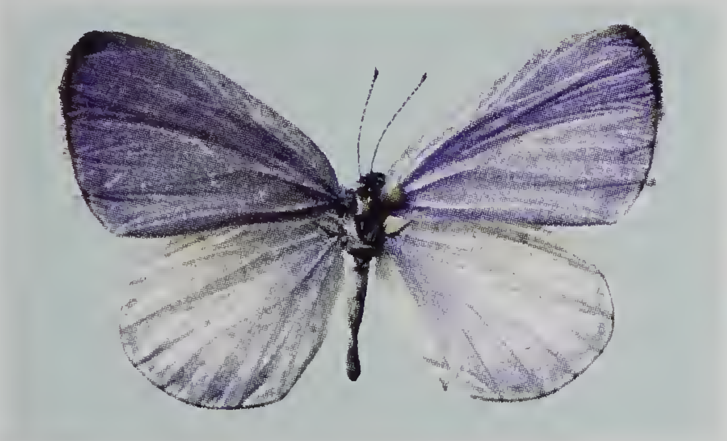
Female, Spring Azure, upperside, Pope County, IL.



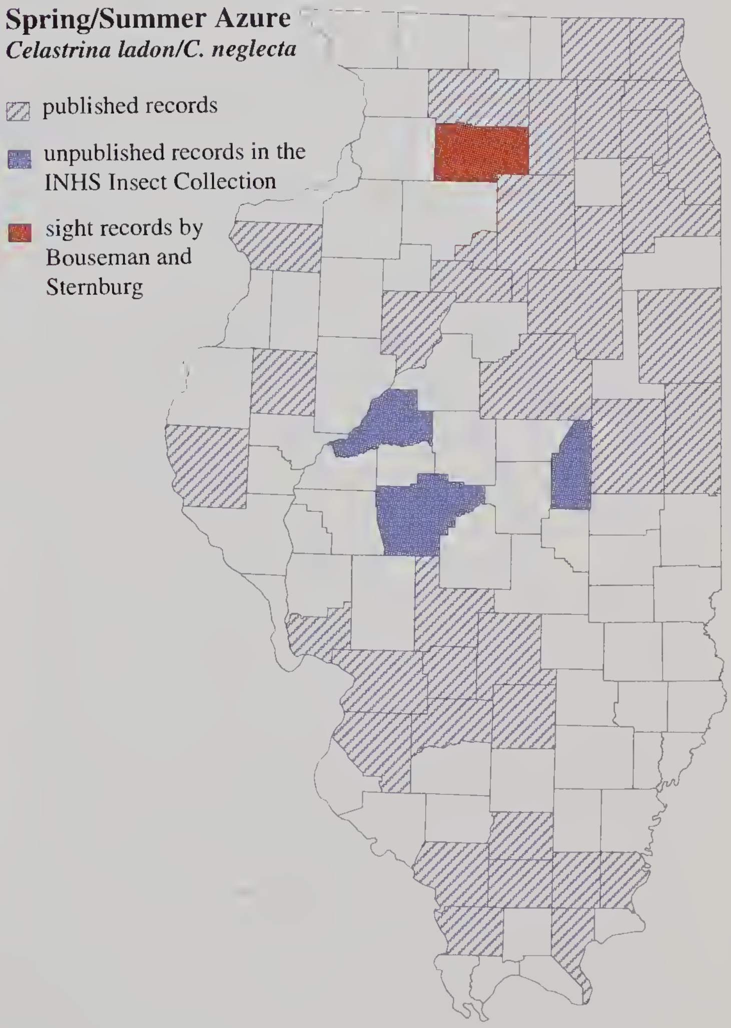
Male, Spring Azure, upperside, Champaign County, IL.

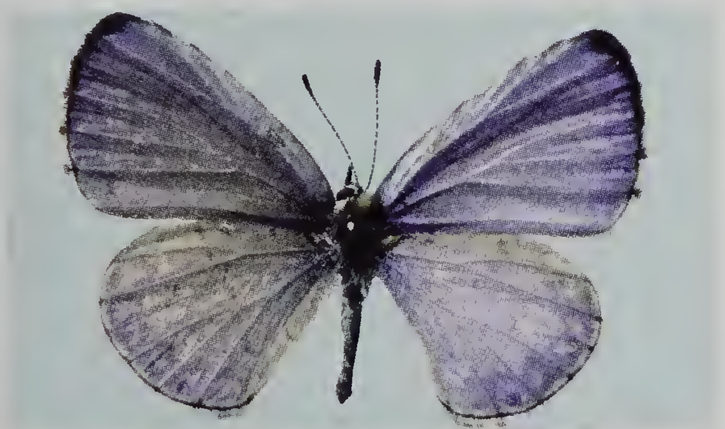


Female, Summer Azure, upperside, Champaign County, IL.



Male, Summer Azure, upperside, Champaign County, IL.


Spring/Summer Azure
Celastrina ladon/C. neglecta
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg



Male, Spring Azure, upperside, Peoria County, IL.

Dusky Azure Lycaenidae, Polyommatinae

Celastrina ebenina (W.H. Edwards)

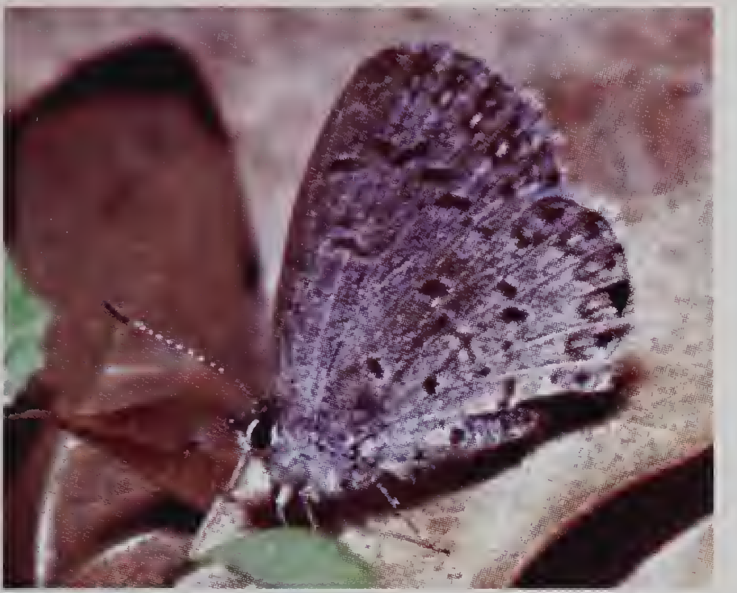
Description: Wingspan 0.8–1.2 in. Sexually dimorphic. Male gray-black on the upperside. Female blackish with areas of light blue. On the underside, both sexes are grayish white with well-developed submarginal black spots.

Similar Species: The Spring Azure males are not dark, but blue. The female Spring Azure has more white on the upperside. On the underside, Spring Azures have the spots less well-defined.

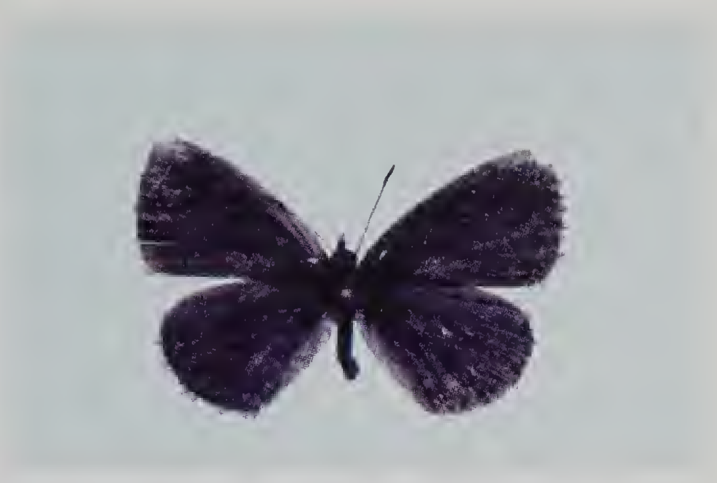
Habitat: Restricted to shady, forested sites where goat's-beard (*Aruncus dioicus*), the larval food plant, can be found.

Natural History: Univoltine, with occasional exceptions. Adults emerge from overwintered pupae in April and early May. They fly several feet above ground, usually where the larval food grows. This is a plant typical of rich deciduous woods, often in hilly or rolling country. The adults take nectar from wild geraniums and other spring ephemerals. They also visit damp ground. Eggs are laid on the undersides of leaves of goat's-beard, sometimes before the leaves are fully developed. The larvae feed on the young leaves. Goat's-beard is the only known larval host. When fully grown the larvae pupate, go into diapause, and emerge the following spring.

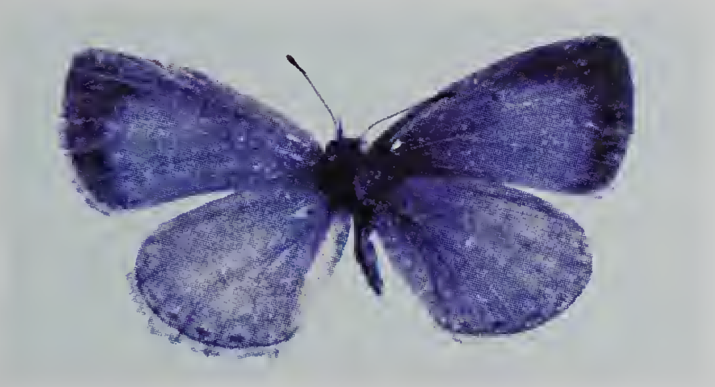
Status: The Dusky Azure is one of the rarest of all eastern U.S. butterflies, known only from a few dozen sites. It was long thought to be a melanic form (var. nigra) of the Spring Azure, but is now known to be a separate species. In Illinois it is rare, known only from a few counties. Local populations may have a fair number of individuals present but should best not be collected, except for scientific purposes, such as voucher specimens for the occurrence, and then only sparingly.



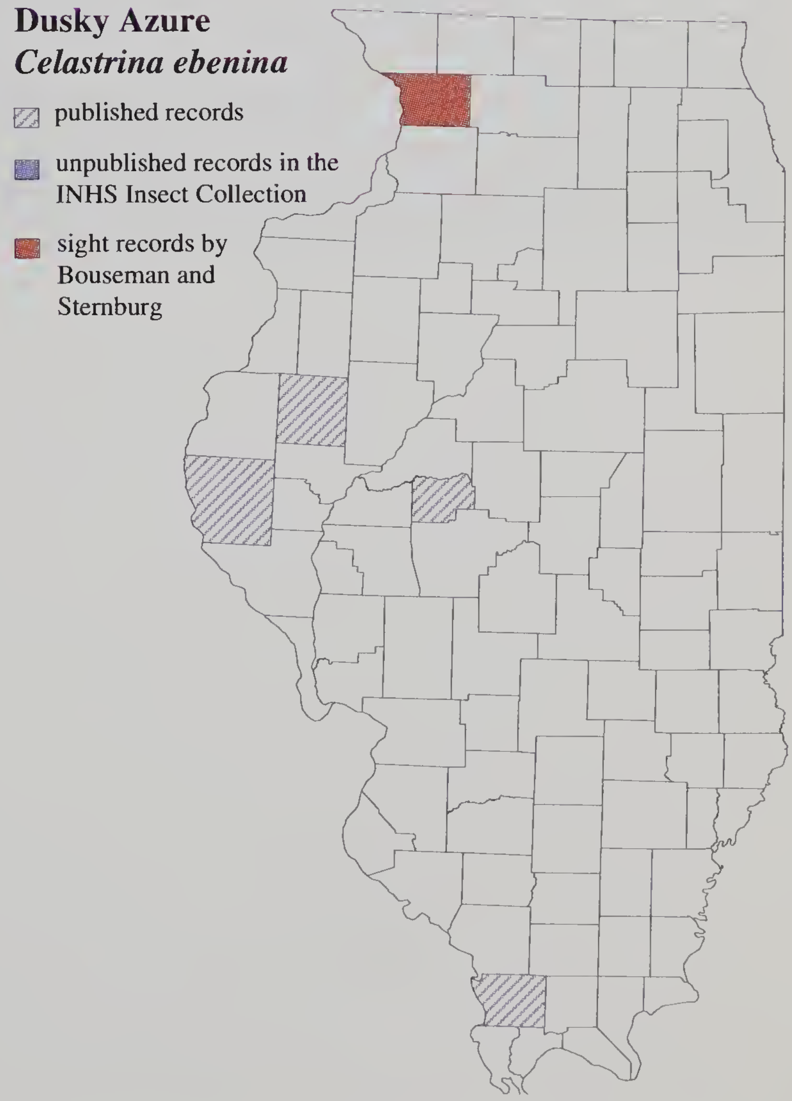
Female, Dusky Azure, Carroll County, IL.



Male, Dusky Azure, upperside, Carroll County, IL.



Female, Dusky Azure, upperside, Carroll County, IL.



Dusky Azure
Celastrina ebenina

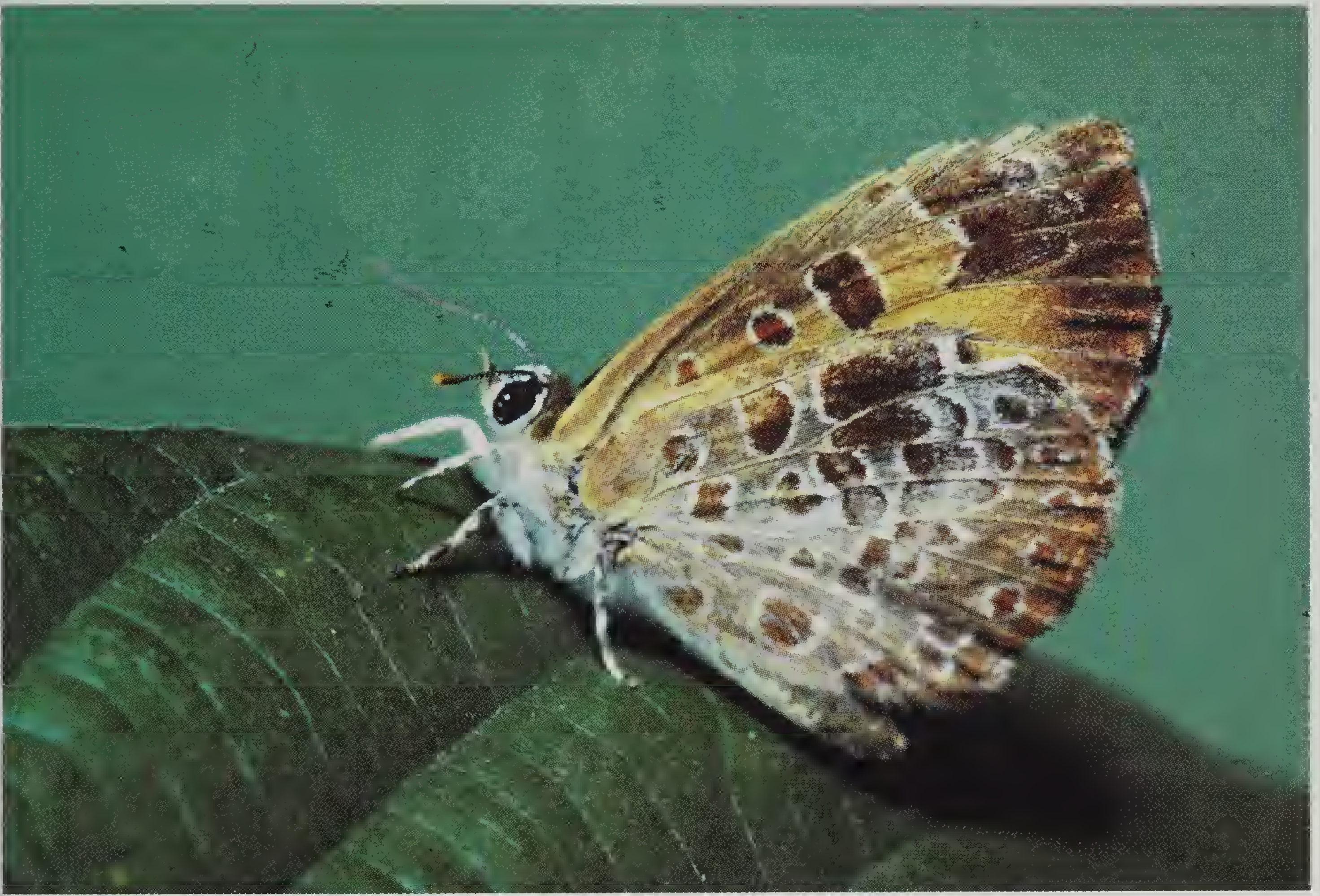
▨ published records

🟪 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg

Subfamily Miletinae: Harvesters

Only one species occurs in North America, including Illinois. It is known as the Harvester, and also the Wanderer. Its nearest relatives are African, and the presence of this single species in North America is remarkable. Larvae are predaceous, feeding only on woolly aphids of several kinds, especially those found on alder. The adults do not visit flowers. Moisture and nutrients are taken from honeydew.



Female, Harvester perching, Vermilion County, IL.

Harvester — Lycaenidae, Miletinae

Feniseca tarquinius (Fabricius)

Description: Wingspan 0.8–1.4 in. Upperside orange with black borders and irregular spots. Underside of hindwing has a pattern of faint spots margined with white. Sexes similar.

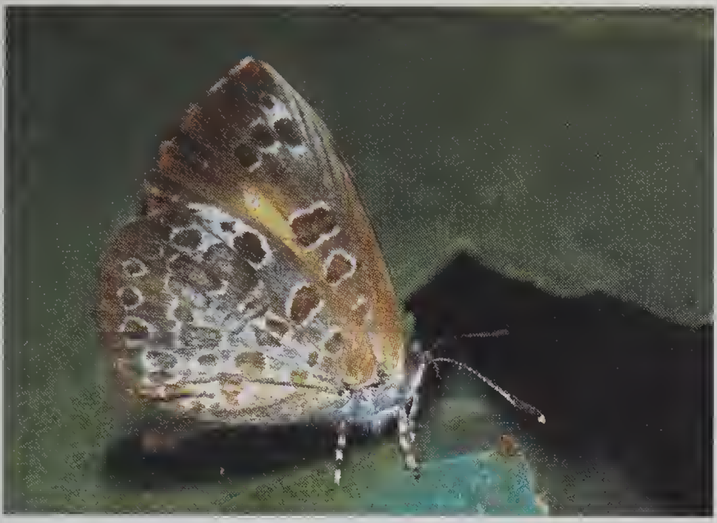
Similar Species: None in Illinois.

Habitat: Wooded areas, often near streams and ponds where alders and ashes harboring woolly aphids are found.

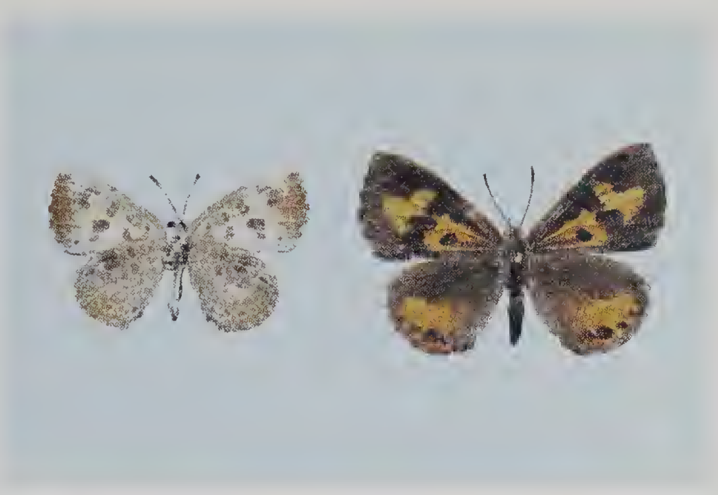
Habits: The Harvester is unique among North American butterflies in the carnivorous feeding behavior of its larvae. Woolly aphids of alders, ashes, and other trees are their sole food. Females lay their eggs singly on or near aphid colonies. The Harvester larvae live surrounded by the aphids on which they feed without resistance. Males perch, waiting for passing females. Neither sex feeds at flowers; instead, they feed upon aphid honeydew and also imbibe liquid at damp sites. There are two or more broods. Harvesters overwinter as pupae.

Status: Breeding resident, probably statewide. It occurs in isolated populations and is usually uncommon.

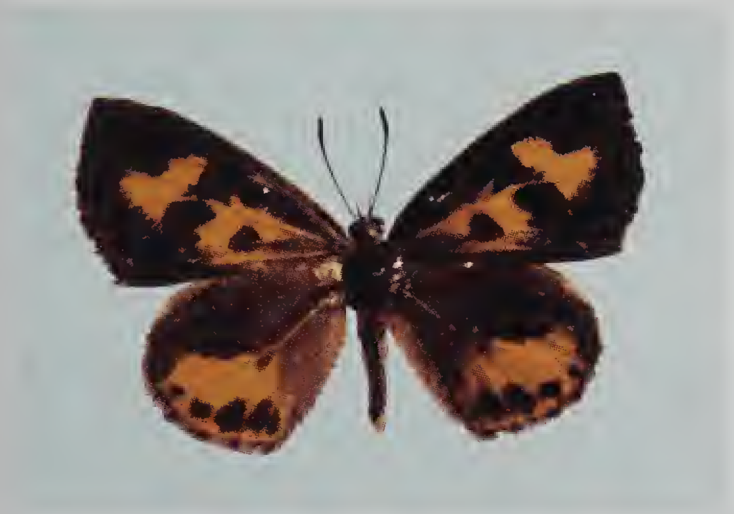
Remarks: The Harvester is also known as the Wanderer. It is the only New World representative of the subfamily Miletinae (also called Gerydinae) of Africa and Asia.



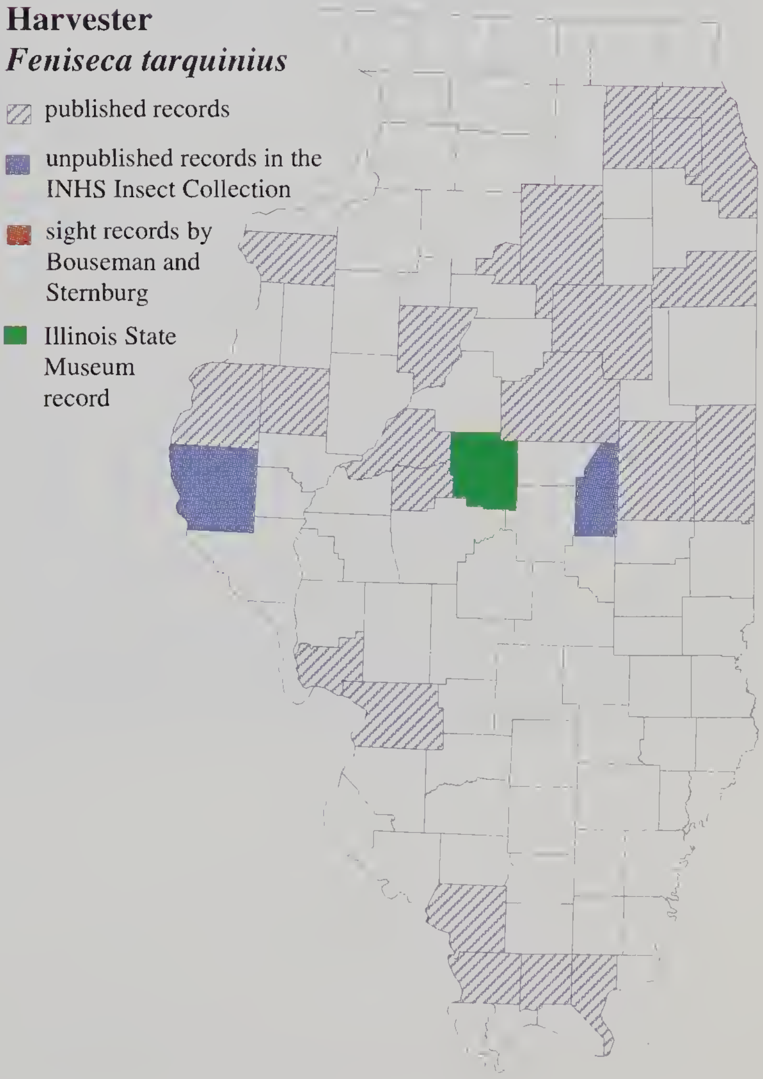
Harvester, Piatt County, IL.



Male, Harvester, underside left, upperside right, Piatt County, IL.



Male, Harvester, upperside, Champaign County, IL.

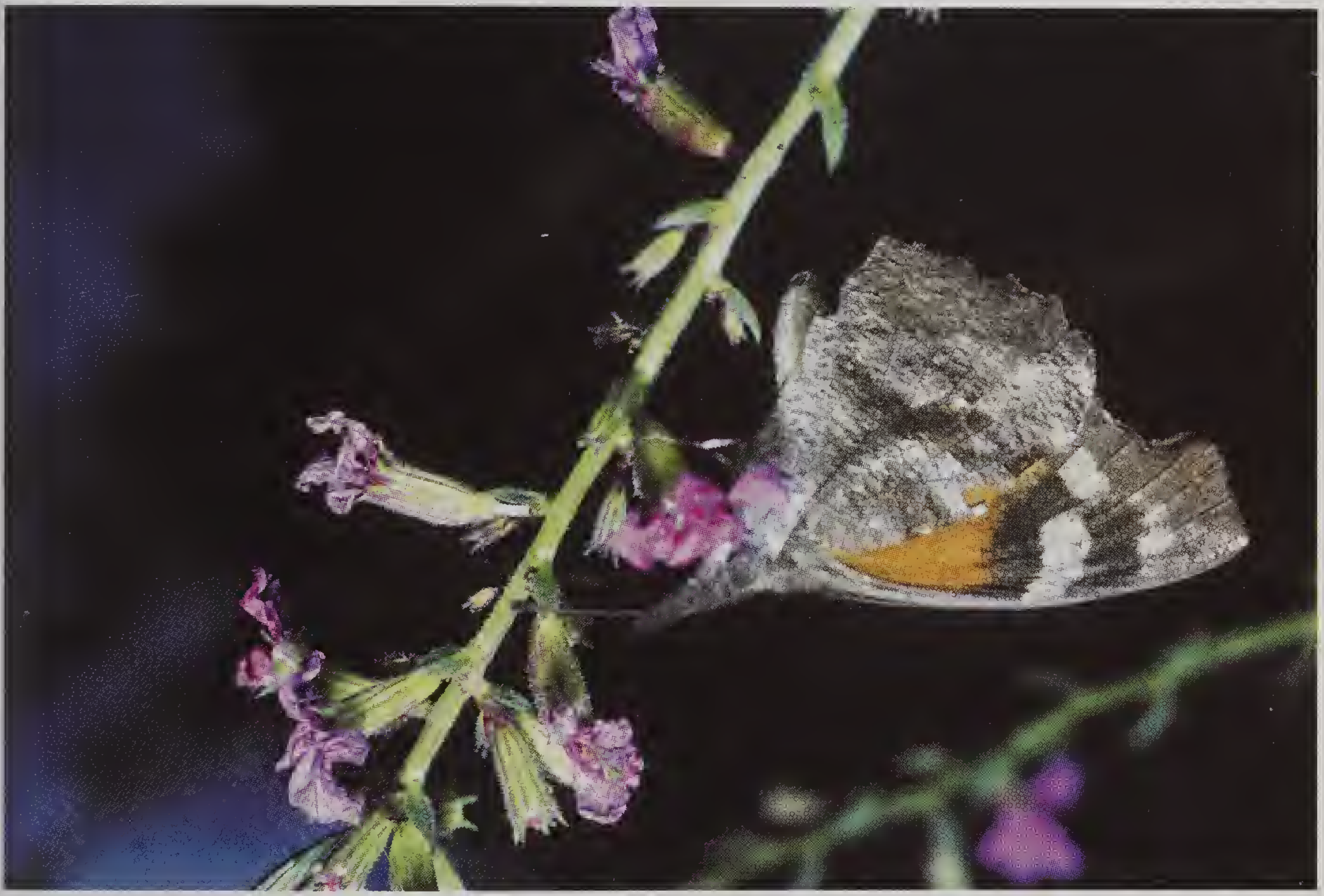

Harvester
Feniseca tarquinius
▨ published records
■ unpublished records in the INHS Insect Collection
■ sight records by Bouseman and Sternburg
🟩 Illinois State Museum record

Family Nymphalidae: Brush-footed Butterflies

These are collectively known as the brush-footed butterflies. Adults have the front legs atrophied and they are not used for locomotion; they are instead sensory in function. The middle and hind pairs of legs are used for walking and perching. These butterflies are in effect quadrupeds! The pupae are suspended head down from a small button of silk spun by the caterpillar. The cremaster hooks hold the suspended pupa in place. The subfamilies are distinctive and best covered individually.

Subfamily Libytheinae

This subfamily is essentially worldwide, usually with one or only a few species over wide areas. Illinois has one species, probably present only as a summer migrant. The common name is Snout Butterfly, in reference to the greatly elongated labial palps. Snout butterflies take nectar from various flowers and also will be found at moist ground.



Snout Butterfly nectaring, Champaign County, IL.

Snout Butterfly — Nymphalidae, Libytheinae

Libytheana carinenta bachmanii (Kirtland)

Description: Wingspan 1.5–2.0 in. Sexes similar. Underside resembles a dead leaf. Upperside brown with orange patches. The elongate labial palps are an excellent recognition character.

Similar Species: None in Illinois.

Habitat: Wooded areas where hackberries grow.

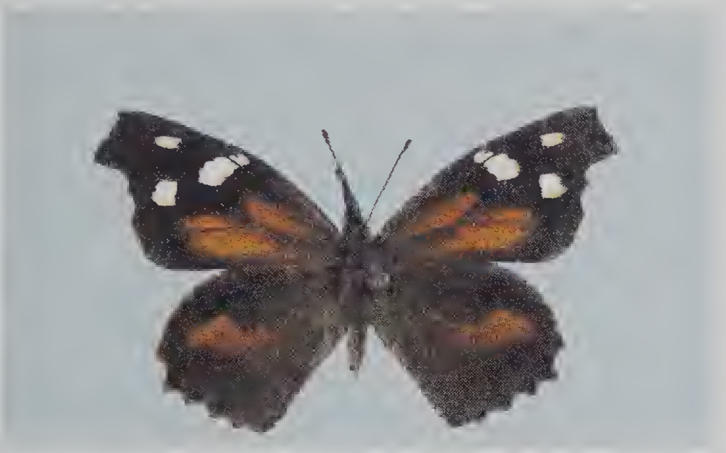
Natural History: Two or more generations in Illinois. The first is made up mainly of migrants from the south, flying in May. The second and partial third generations appear from June to September. Larvae feed on leaves of hackberries (*Celtis* spp.). In the tropics and subtropics it often migrates in large numbers. It is likely that few survive Illinois winters.

Status: Scarce in the north, often common in central and southern Illinois.

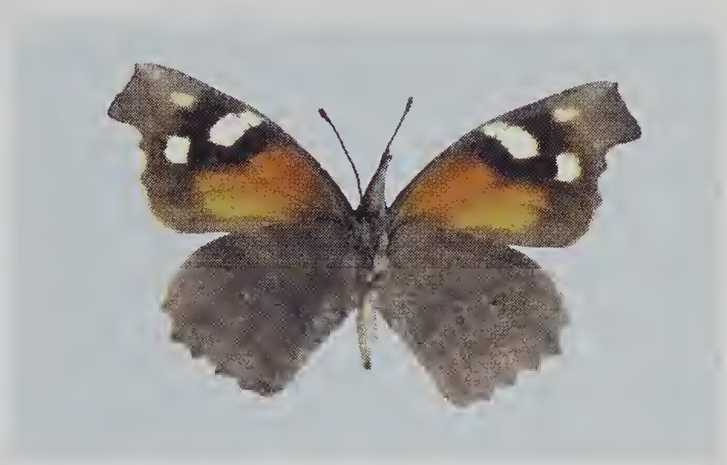
Remarks: At rest with the wings closed, the elongate labial palps resemble a leaf stem and augment the cryptic resemblance to dead leaves.

Snout Butterfly, Champaign County, IL.

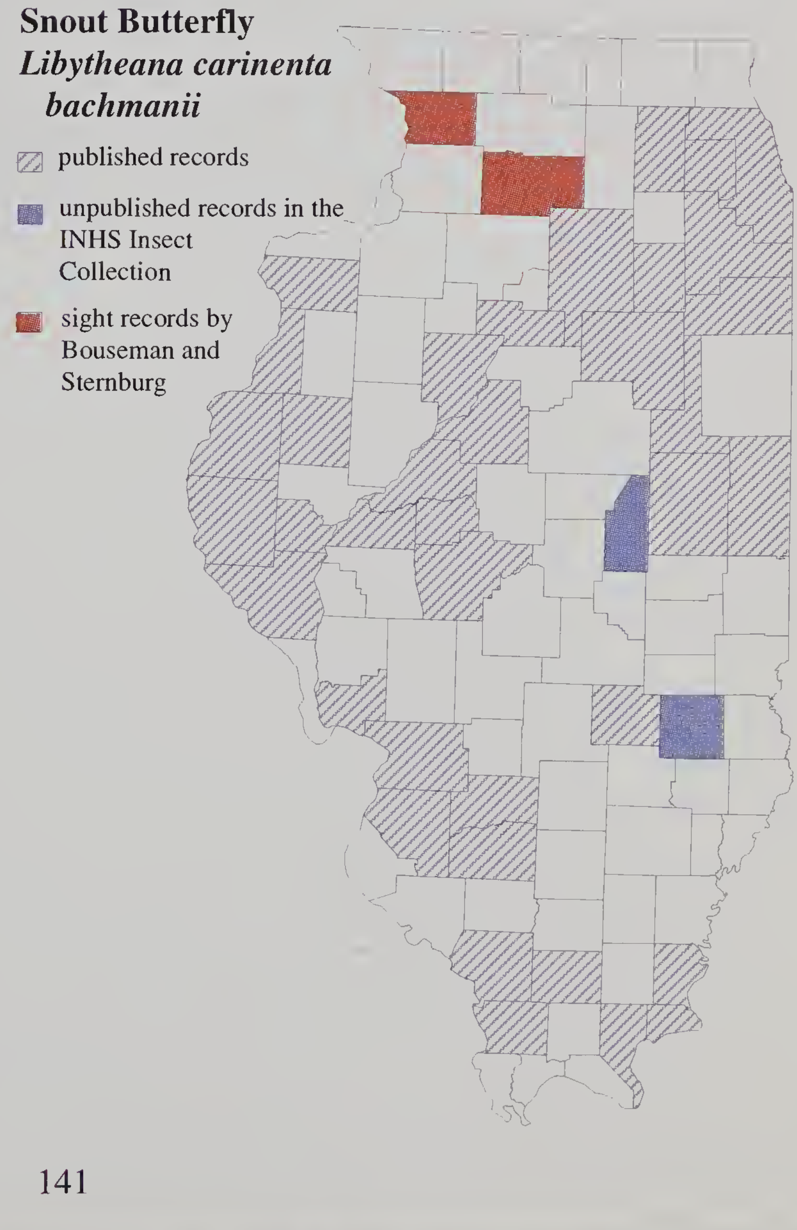
Snout Butterfly, Champaign County, IL.



Snout Butterfly, upperside, Champaign County, IL.



Snout Butterfly, underside, Champaign County, IL.

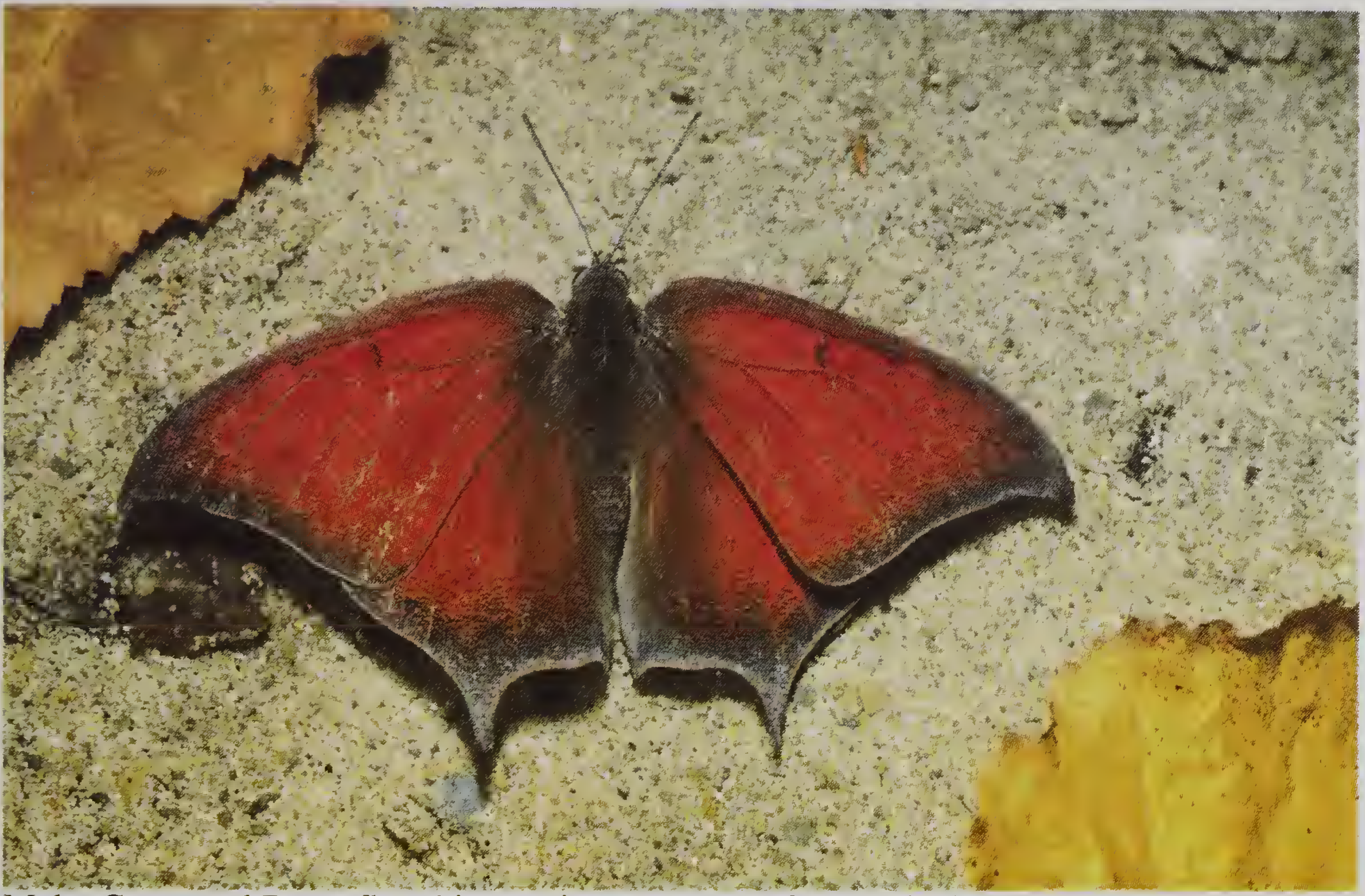


Snout Butterfly
Libytheana carinenta bachmanii

▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Subfamily Charaxinae: Leafwings

The leafwings are mostly tropical insects. One species occurs in Illinois (*Anaea andria*), and another occurs as a rare vagrant (*A. aidea*). The name derives from the close resemblance of the undersides to a dead leaf. At rest the insect perches with the wings closed, usually with the body parallel with a plant stem, where it is easily mistaken for a leaf. Larvae are similar to those of the Apaturinae.



Male, Goatweed Butterfly taking moisture, Wayne County, MO.

Goatweed Butterfly — Nymphalidae, Charaxinae

Anaea andria Scudder

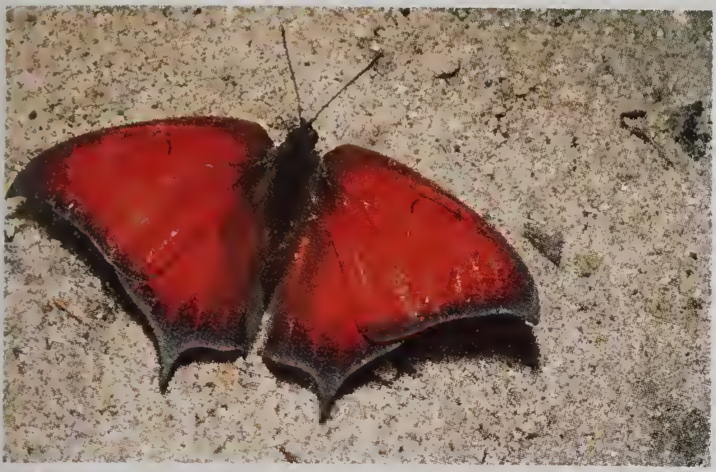
Description: 2.5–3.5 in. Sexually and seasonally dimorphic. Males are bright orange-red on the upperside with reduced black markings. Females have an irregular submarginal band of yellowish spots and less bright overall color. Summer individuals of both sexes have the forewing apex squared off. The fall generation individuals have the forewing apex falcate. The underside of all forms is cryptic, looking much like a dead leaf. The resemblance is furthered by the short hindwing tail, forming the stem of the leaf.

Similar Species: The Tropical Leafwing (*Anaea aidea*), a rare vagrant in Illinois, resembles the Goatweed Butterfly. Details of the markings differ. Refer to illustrations.

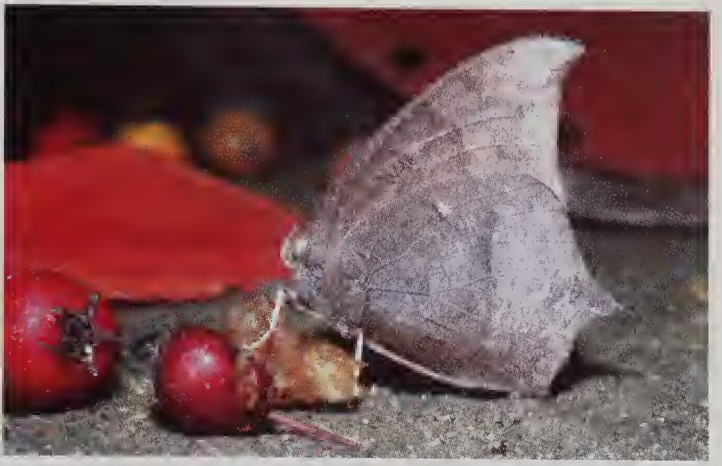
Habitat: Found in open woods, along trails, roads, streams, forest edges.

Natural History: Bivoltine. Adults overwinter. Adults of the overwintering generation appear in spring until late June. These may be both resident (in the southern counties) and migrant colonists from farther south. The first new generation appears in July. The second generation is more numerous and is present and active from mid-August until fall. This second generation hibernates. Adults when perched hold a position on a plant stem much like an attached but dead leaf. Adults are fast fliers but are easily approached when feeding at sap flows or fermenting and ripe fruit. They often take moisture from damp ground. Larvae feed on the leaves of crotons or goatweeds (*Croton* spp.).

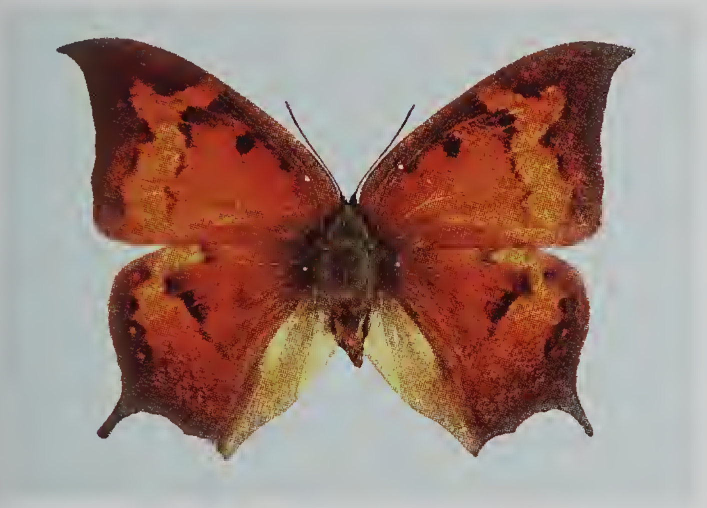
Status: Rare in northern Illinois. Can be common in southern Illinois. In the late 1940s and the 1950s the species was common in the fall at the University of Illinois apple orchard.



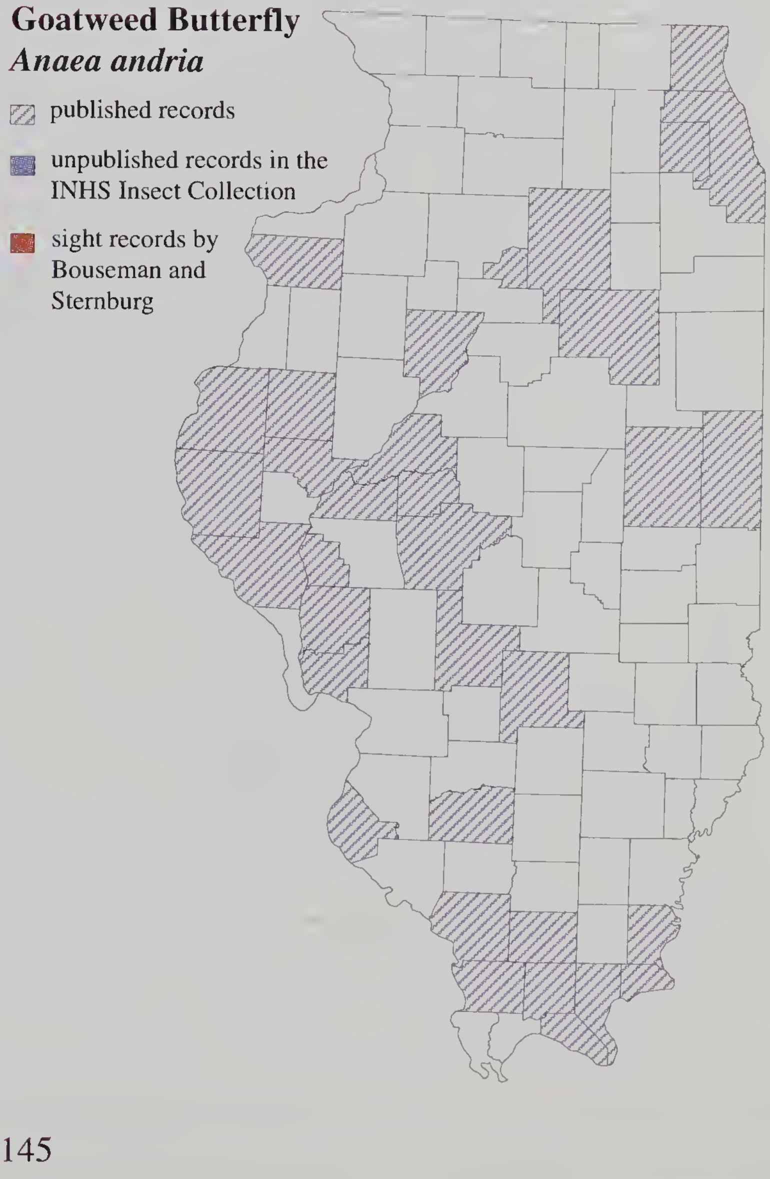
Male, Goatweed Butterfly, Wayne County, MO.



Male, Goatweed Butterfly, Wayne County, MO.



Female, Goatweed Butterfly, upperside, Johnson County, IL.



Goatweed Butterfly
Anaea andria

▨ published records

🟦 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg

Tropical Leafwing **Nymphalidae, Charaxinae**

Anaea aidea (Guérin-Ménéville)

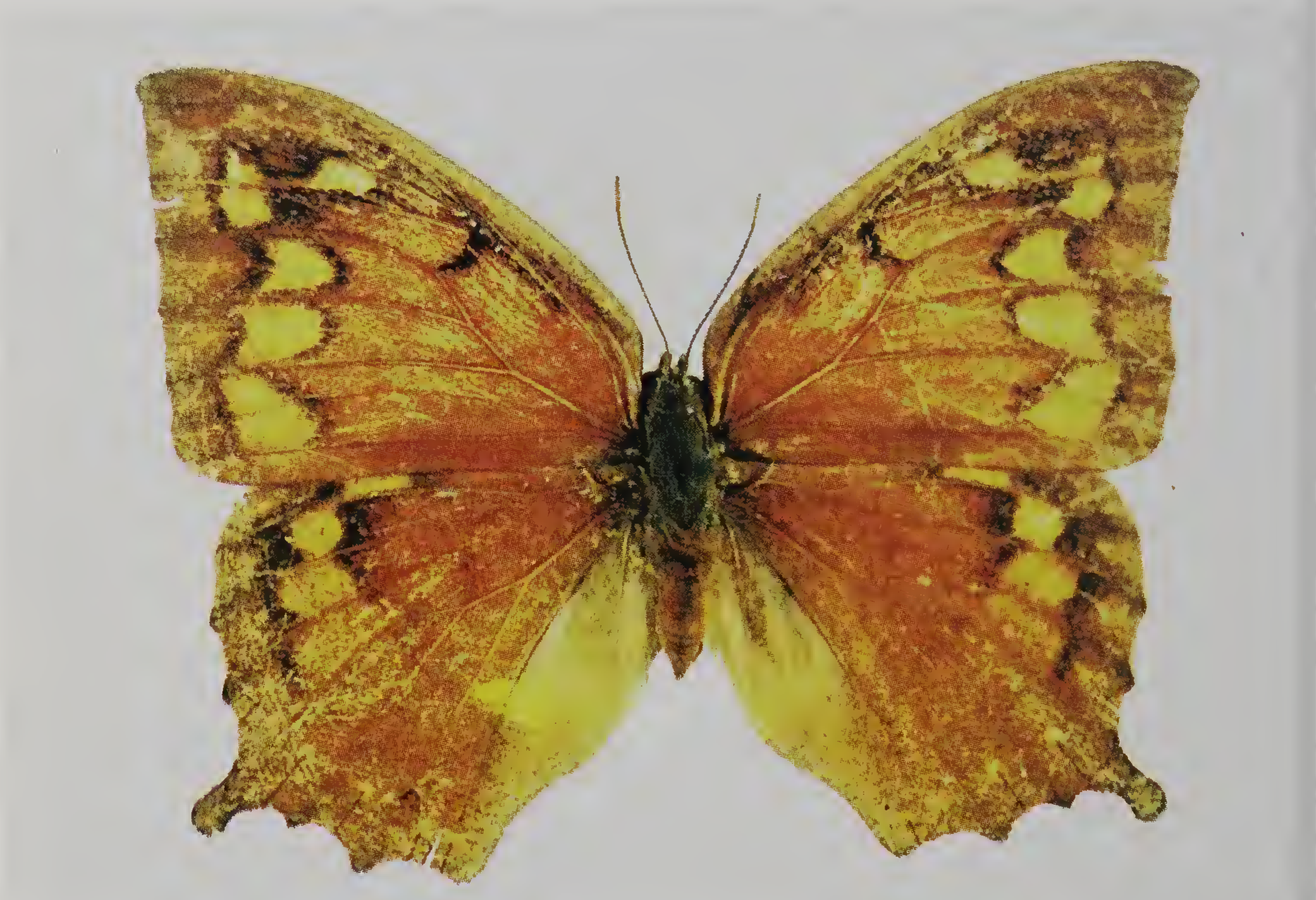
Description: Wingspan 2.5–3.1 in. Seasonally dimorphic. The fall (overwintering) generation has falcate forewings. The overall color is orange-red, with some black marginal spots. The undersides of the wings resemble dead leaves.

Similar Species: The Goatweed Butterfly is not as red.

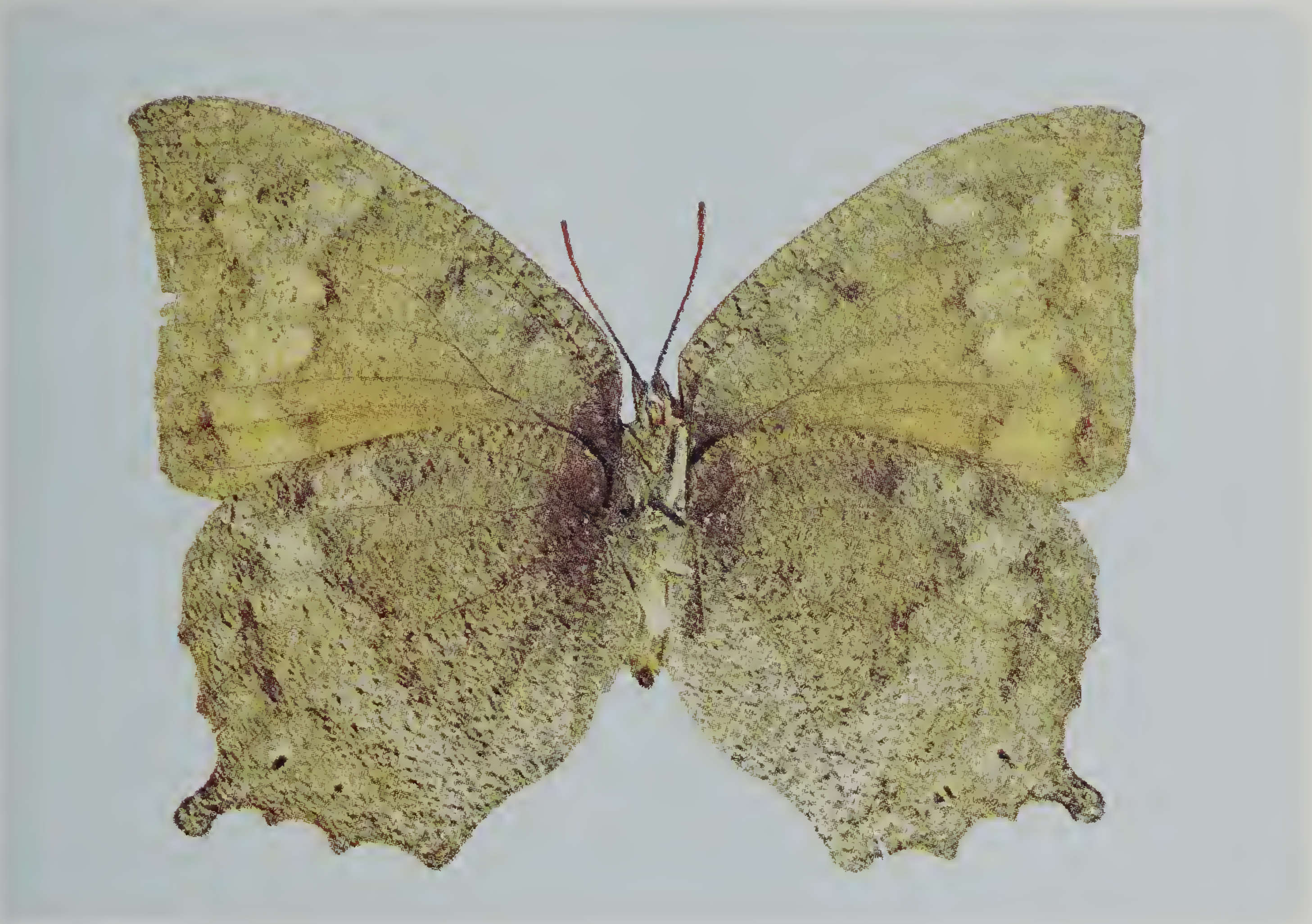
Habitat: A tropical insect. In Illinois it has been collected in a disturbed area (an old railroad yard in Brookport, Illinois) in southern Illinois.

Natural History: A tropical insect that does not breed in Illinois.

Status: A rare vagrant. Not a regular part of the Illinois fauna.



Female, Tropical Leafwing, upperside, Massac County, IL.



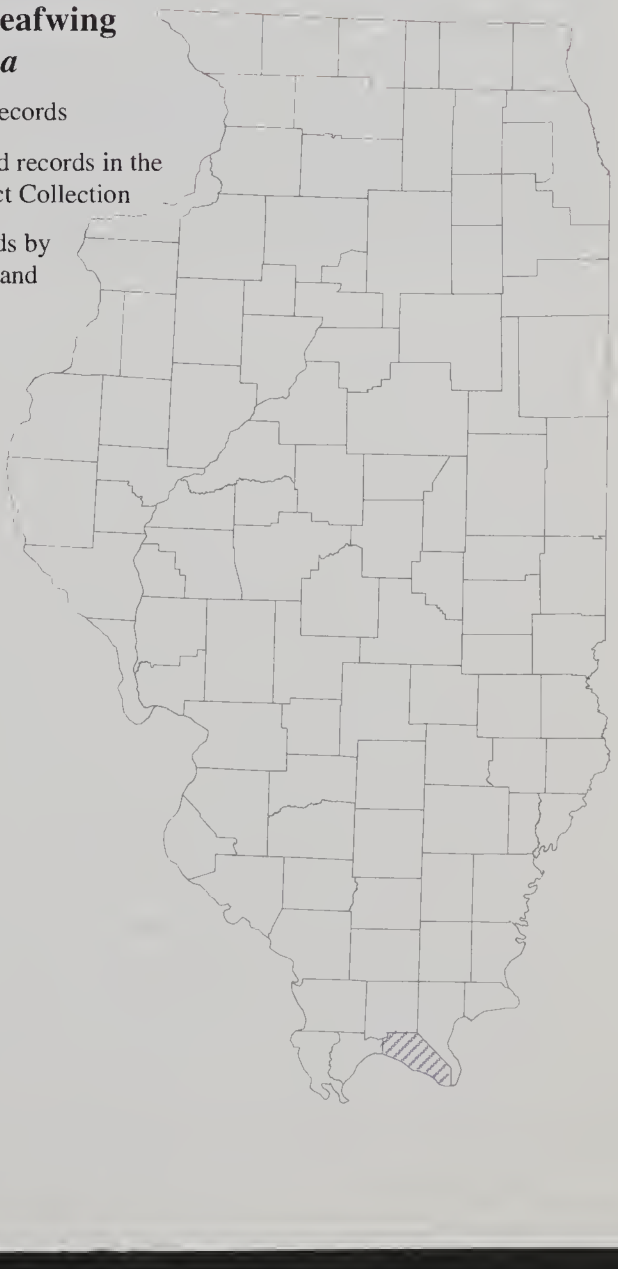
Female, Tropical Leafwing, underside, Massac County, IL.

Tropical Leafwing
Anaea aidea

▨ published records

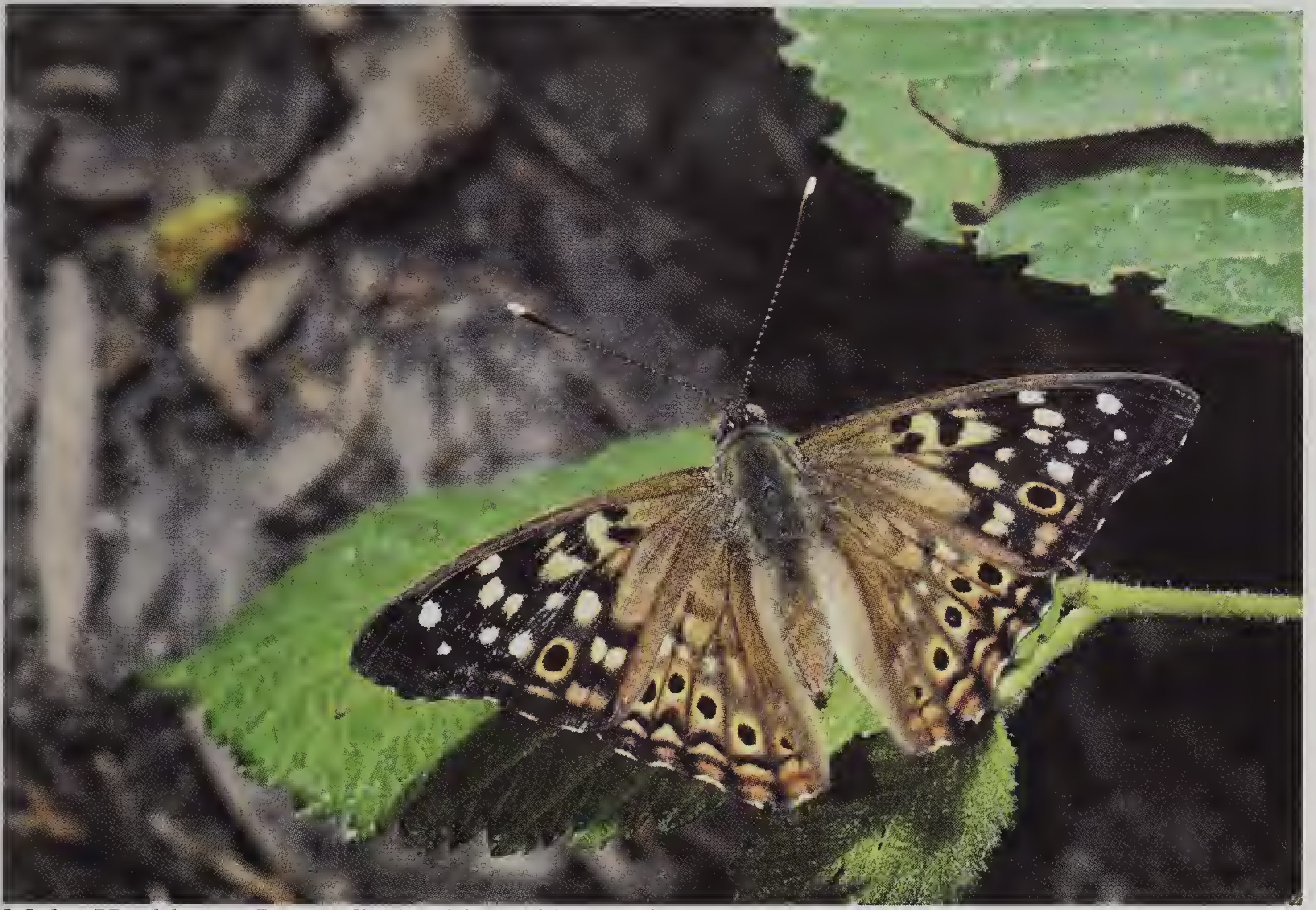
▪ unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg



Subfamily Apaturinae: Hackberry Butterfly, Emperors

Our members are the Emperors. Most species are tropical and only two occur in Illinois. Adults rarely visit flowers. They find nourishment at sap flows, ripe fruit, carrion, and animal feces. Larvae have smooth bodies with the head possessing a pair of spines extending forward, and another pair at the posterior tip of the abdomen.



Male, Hackberry Butterfly basking, Champaign County, IL.

Hackberry Butterfly — Nymphalidae, Apaturinae

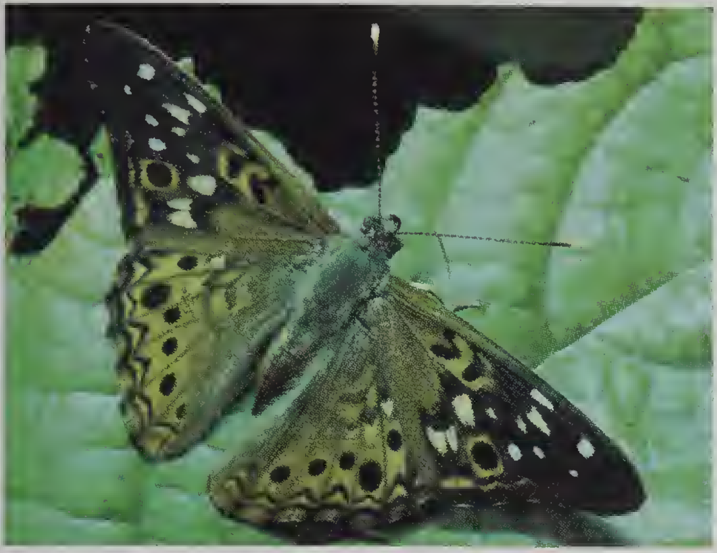
Asterocampa celtis (Boisduval and LeConte)

Description: Wingspan 2.0–2.5 in. Sexually dimorphic in wing shape. Females are larger than males and have broader, more rounded wings. In color they are similar, but paler. In both sexes, there are white apical spots on the forewings, and a black eyespot centrally located. On the hindwing there is a submarginal row of black spots. The general color is a mix of tawny brown, brown, and black. On the underside, the eyespots are separated by purplish bars and light patches. There is a complex network of bars throughout the wings.

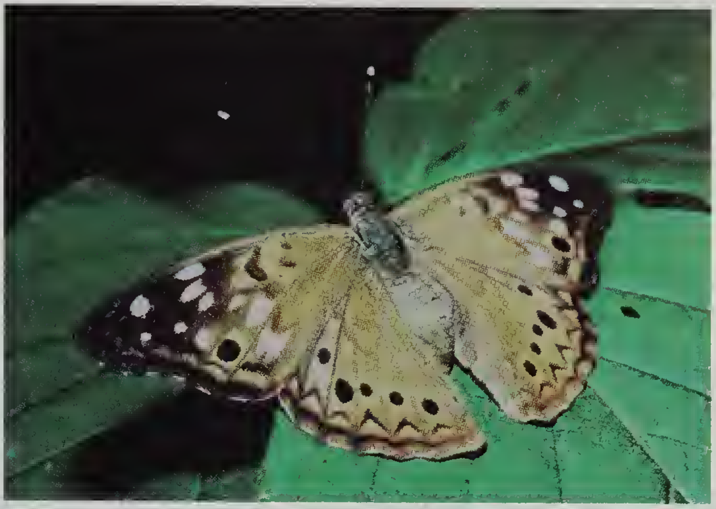
Similar Species: The Tawny Emperor lacks the white spots and eyespot on the frontwings. The satyrs in the genus *Enodia* have a different pattern of spots but do appear similar at first glance.

Habitat: Two or three generations as a breeding resident. Half-grown larvae overwinter. Adults fly from May to September. They are usually most abundant in August. The adults do not feed at flowers, but visit ripe and overripe fruit, animal feces, carrion, and sap flows. They also take minerals and water from damp sites. Adult males are pugnacious, often darting out at passing insects or even birds. Males perch and wait for females. They may even perch on the head or shoulders of a person. When disturbed, they fly away but often return to the same perch. Females are rarely seen, compared to the usually common males. Eggs are laid in clusters on hackberry. Only species of hackberries (*Celtis* spp.) are consumed by the larvae.

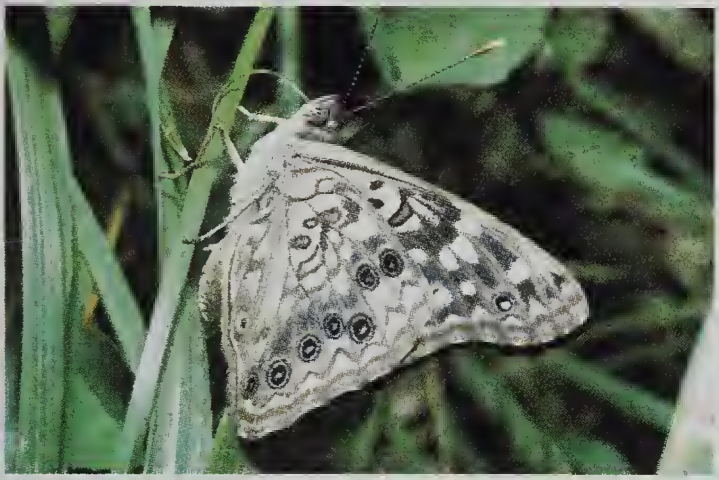
Status: Common locally. Statewide, but less common in the north.



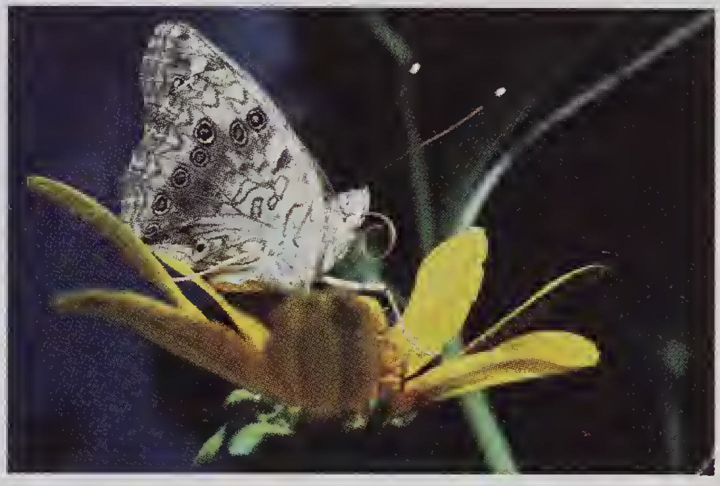
Male, Hackberry Butterfly, Champaign County, IL.



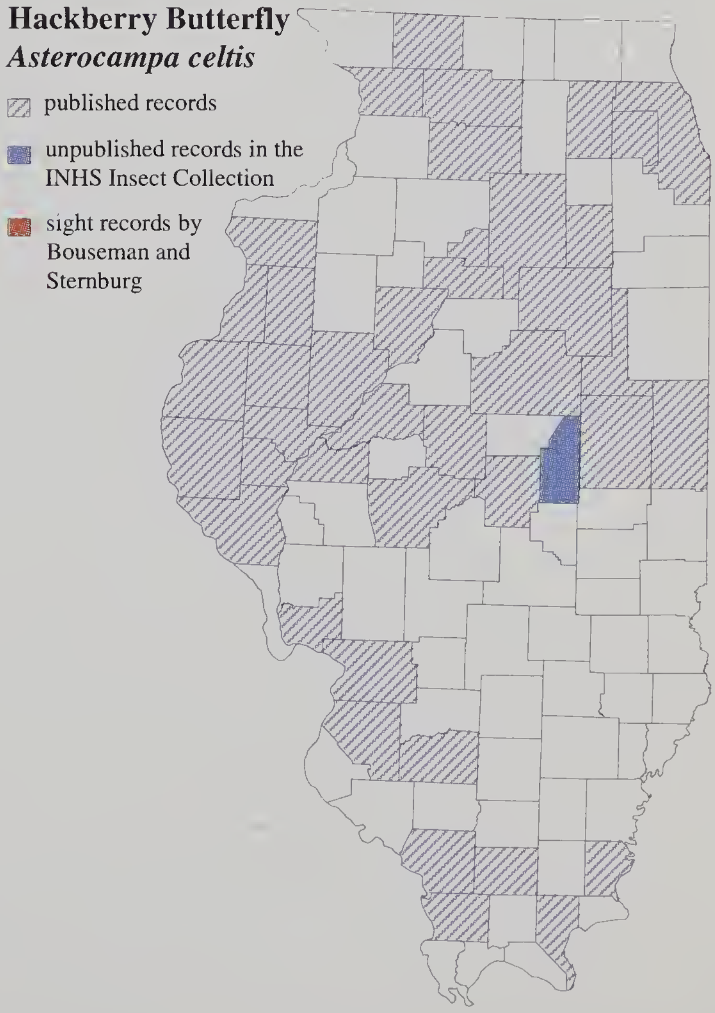
Female, Hackberry Butterfly, Champaign County, IL.



Male, Hackberry Butterfly, Champaign County, IL.



Female, Hackberry Butterfly, Champaign County, IL.


Hackberry Butterfly
Asterocampa celtis
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Tawny Emperor — Nymphalidae, Apaturinae

Asterocampa clyton (Boisduval and LeConte)

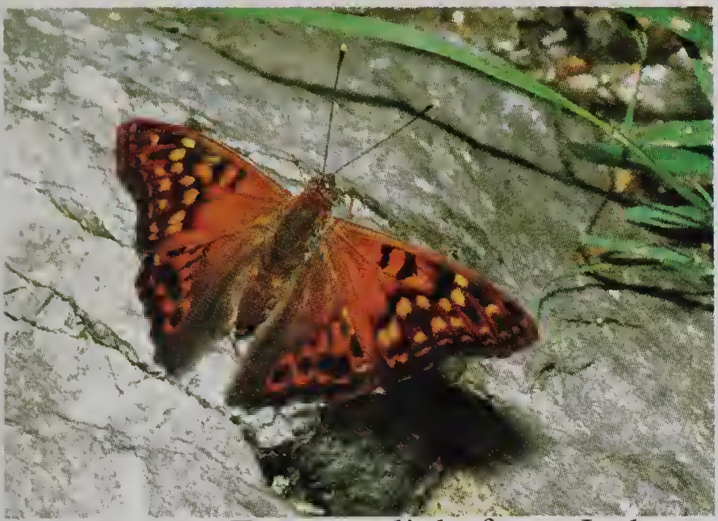
Description: Wingspan 2.0–2.6 in. Sexually dimorphic. Females are larger and have more-rounded wings. Two color forms of both sexes occur. In one the hindwings are mostly dark. In the other the hindwings have the same pattern of bars and tawny spots as the forewings. There are no white spots on the apex of the forewing, and no eyespots on the forewing. The hindwing has a submarginal row of black eyespots without pupils. The underside of the forewing lacks eyespots, and the spots of the hindwing are indistinct. The pattern is a complex of black bars and light spots, violet areas, and tawny areas.

Similar Species: The Hackberry Butterfly has white spots on the apex of the forewing.

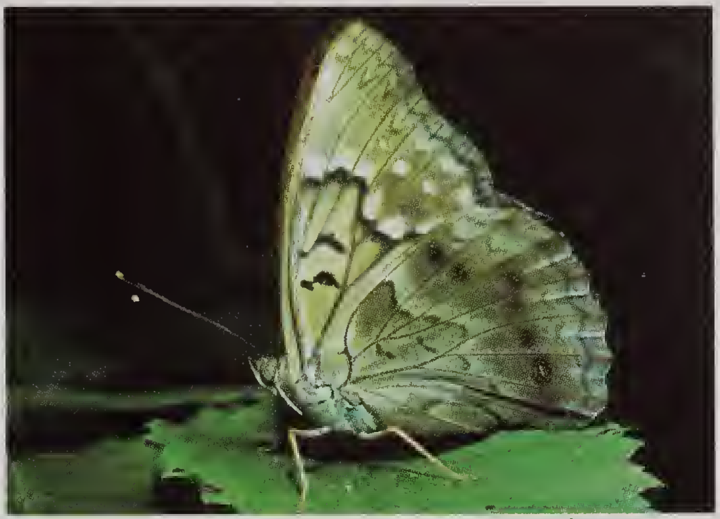
Habitat: Occurs in forests, forest edges, cities and parks. Often found along trails and roads through wooded regions.

Natural History: Probably mostly univoltine in Illinois. Often found with the Hackberry Butterfly, but rarely as common. Adults tend to rest higher in trees than the Hackberry Butterfly and may be overlooked. Adults do not alight on people as often. Flight of adults is from June to late August. Males perch in anticipation of females. Eggs are laid on hackberry trees (*Celtis* spp.), the only larval hosts. Partly grown larvae overwinter. Adults feed at sap flows, overripe fruit, carrion, and animal feces. They rarely visit flowers.

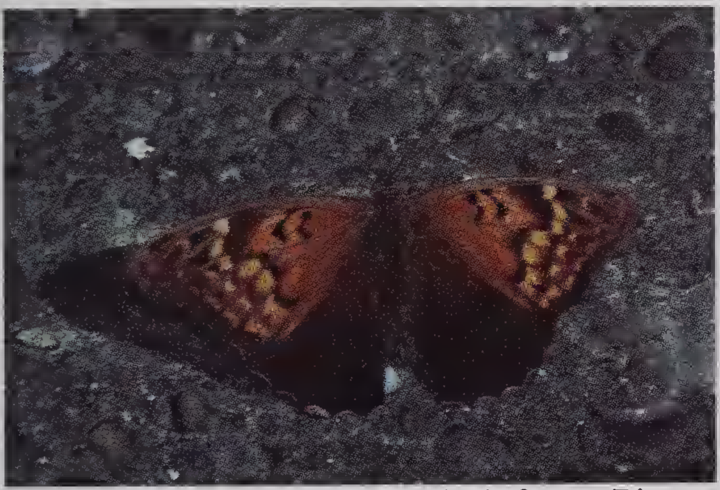
Status: Occurs statewide, uncommon in the north, common in the south. The species is rarely as abundant as the related Hackberry Butterfly.



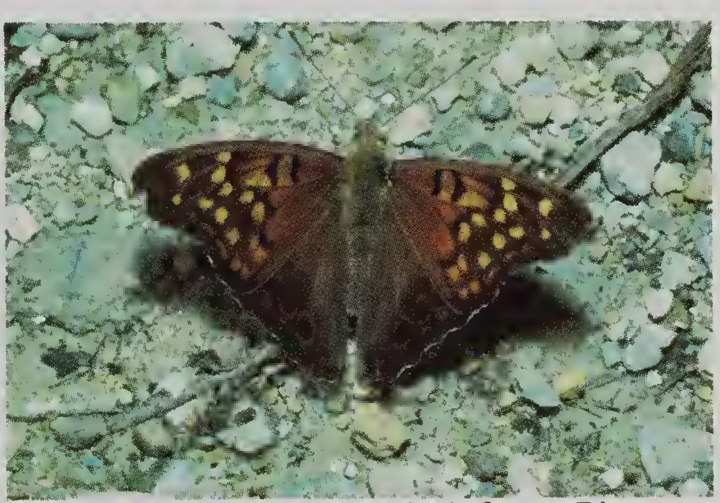
Male, Tawny Emperor, light form, Jackson County, IL.



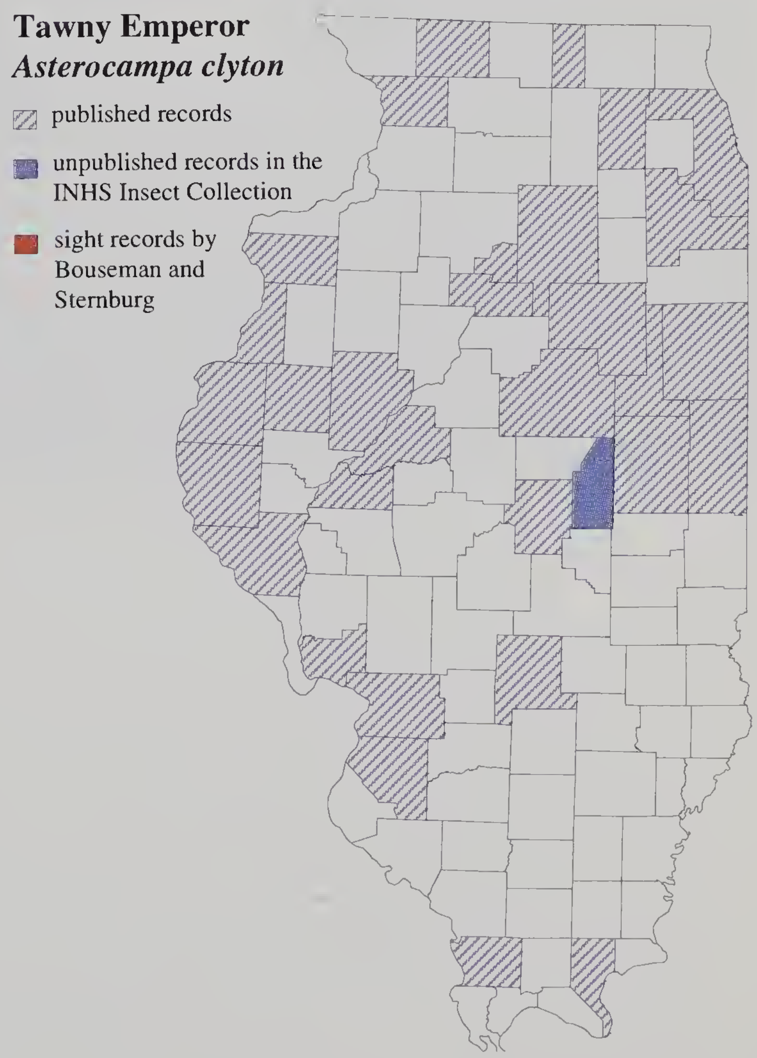
Female, Tawny Emperor, Champaign County, IL.



Female, Tawny Emperor, dark form, Piatt County, IL.



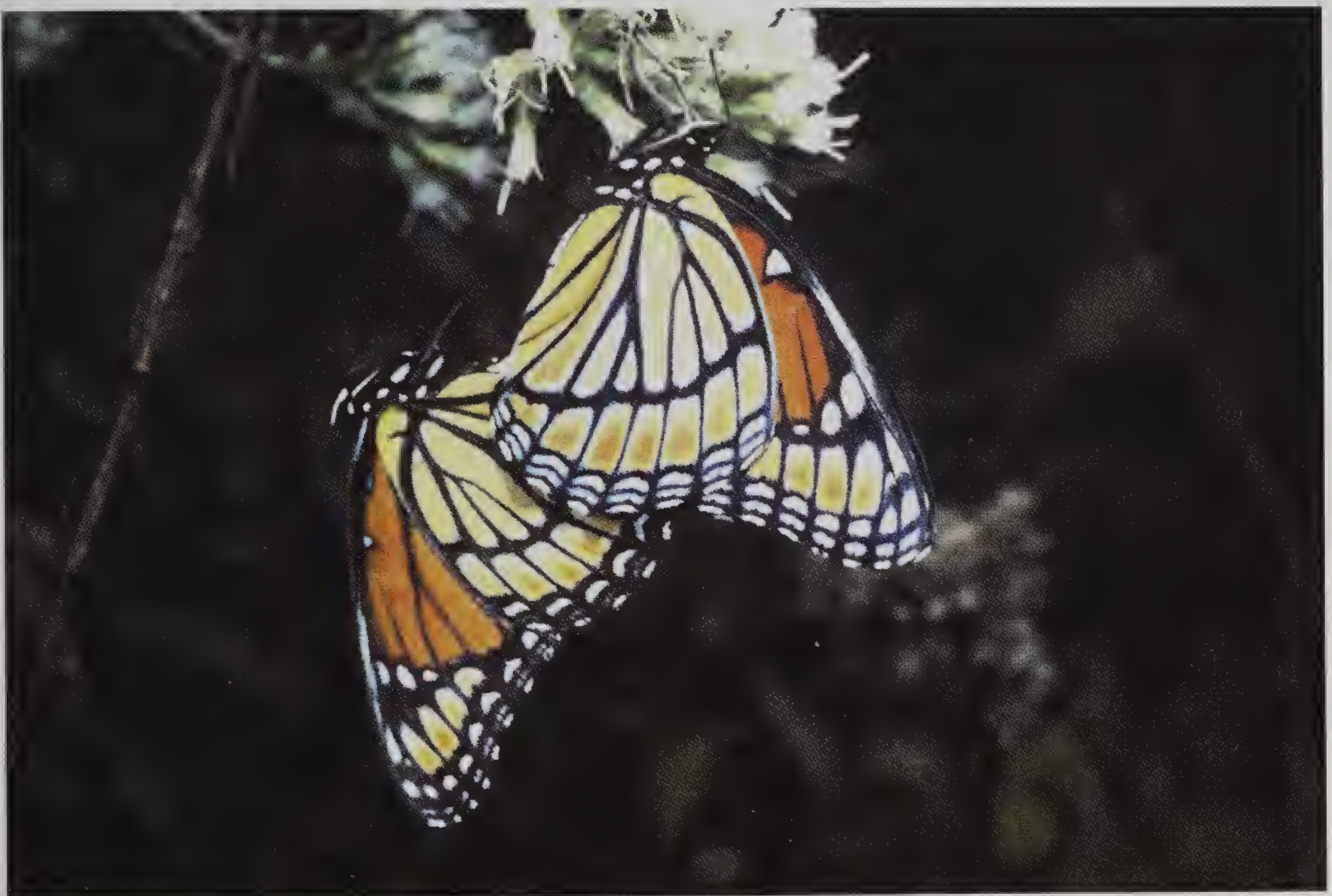
Male, Tawny Emperor, dark form, Piatt County, IL.



Tawny Emperor
Asterocampa clyton
▨ published records
▨ unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Subfamily Limenitidinae: Admirals, Viceroy

The admirals and the Viceroy are included here. Our two common species are mimics of toxic and unpalatable butterflies. The Viceroy is a mimic of the Monarch. Viceroys are believed to be somewhat unpalatable and toxic, and therefore are Müllerian mimics. The Red-spotted Purple is a Batesian mimic of the Pipevine Swallowtail. The White Admiral barely enters the state in the north and is not mimetic, but instead has a disruptive pattern. Larvae of this subfamily are distinctive, with smooth bodies and elongate spurs on the thorax. The color is suggestive of a bird dropping. Adults of the Viceroy commonly visit flowers for nectar. Red-spotted Purples and White Admirals occasionally take nectar but more often are found at ripe fruit, sap flows, carrion, and animal feces. These sources are sometimes attractive to Viceroys as well.



Viceroy mated pair (female above, male below), Vermilion County, IL.

Red-spotted Purple Nymphalidae, Limenitidinae

Limenitis arthemis astyanax (Fabricius)

Note: Two subspecies of *L. arthemis* occur in eastern North America. Where their ranges meet and overlap, many intergrades occur. Northern Illinois is at the southern edge of the overlap between these two. Here some individuals will be found with colors and markings intermediate between the two subspecies. The Red-spotted Purple is found throughout the state. The White Admiral (*L. a. arthemis*) barely enters the state, and rarely in typical form. Intergrades are found in the northern Illinois counties and sometimes farther south.

Description: Wingspan 3.0–4.0 in. Sexes similar, except for size. Females are sometimes much larger than males. Upperside black with blue cast, and bright iridescent blue or blue-green over most of the hindwing. Underside black with basal and submarginal red-orange spots, and a marginal row of blue spots on both wings. There are no tails. This is a magnificent butterfly, rivaling many tropical butterflies.

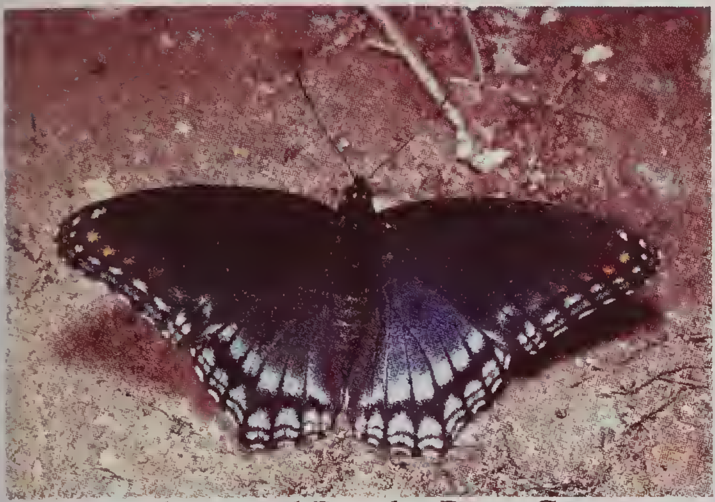
Similar Species: The Pipevine Swallowtail, mimicked by the Red-spotted Purple, has tails and only submarginal orange spots on the underside.

Habitat: Forested areas, suburban and urban areas with trees, often along streams, forest edges.

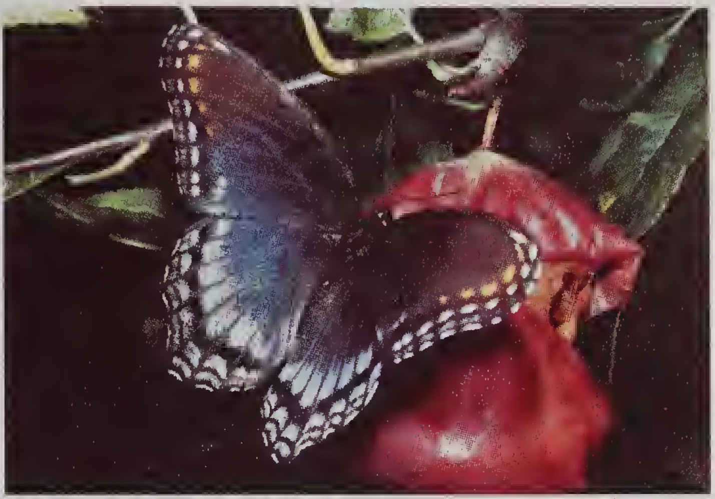
Natural History: Bivoltine. First-generation adults in May and June from overwintered partially grown larvae. Second-generation adults appear from mid-summer to fall. Adult males perch and patrol. They often gather at moist ground sites. Females lay eggs on wild black cherry (*Prunus serotina*), apple (*Malus pumila*), willow (*Salix* spp.), poplar (*Populus* spp.), and other trees. The larvae feed on the leaves, resting in leaves rolled to form shelters. It is there that partially grown larvae hibernate. Adults rarely visit flowers. They are more attracted to ripe fruit, sap flows, carrion, and animal feces, especially from carnivores. Adults fly with an alternating glide and wing-beat pattern.

Status: Statewide and common.

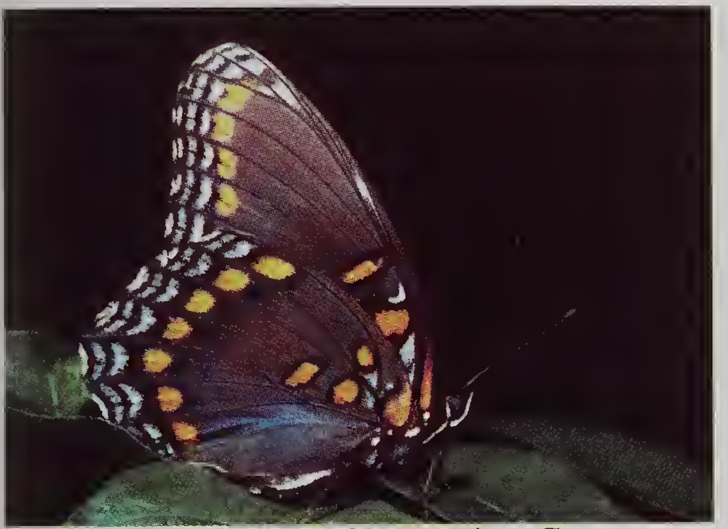
Remarks: The Red-spotted Purple is a Batesian (palatable) mimic of the toxic and unpalatable Pipevine Swallowtail. Its range coincides over the eastern U.S. with the range of the Pipevine Swallowtail. North of that, the White-banded Purple (= White Admiral) occurs, with its disruptive coloration. In the blend zone where the two subspecies overlap, all manner of intergrades occur.



Male, Red-spotted Purple, Pope County, IL.



Female, Red-spotted Purple, Champaign County, IL.



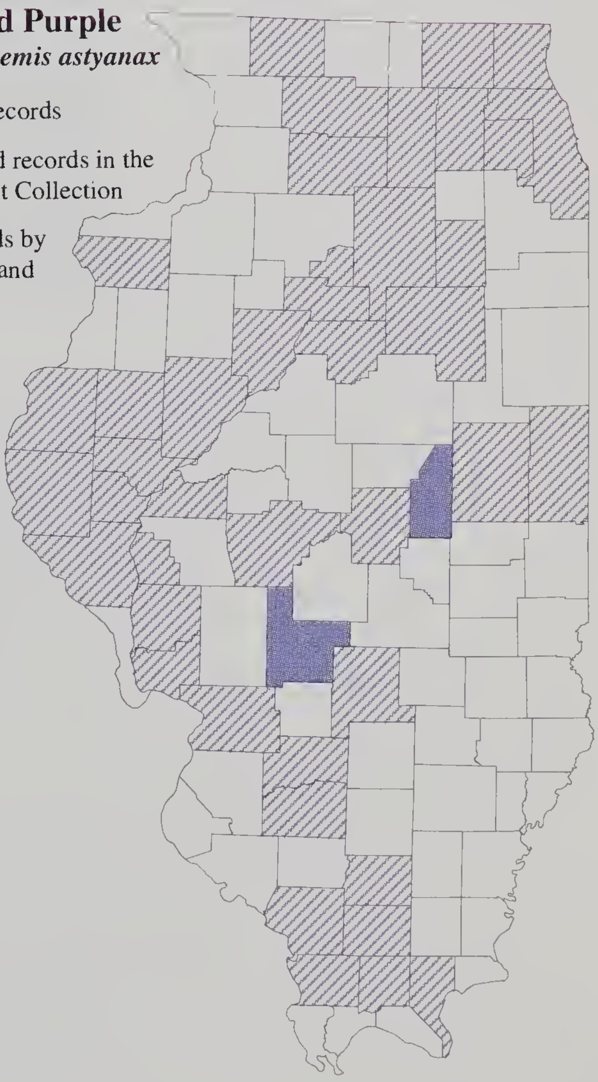
Red-spotted Purple, Champaign County, IL.

Red-spotted Purple
Limenitis arthemis astyanax

▨ published records

🟪 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg



White Admiral (= Banded Purple) Nymphalidae, Limenitidinae

Limenitis arthemis arthemis (Drury)

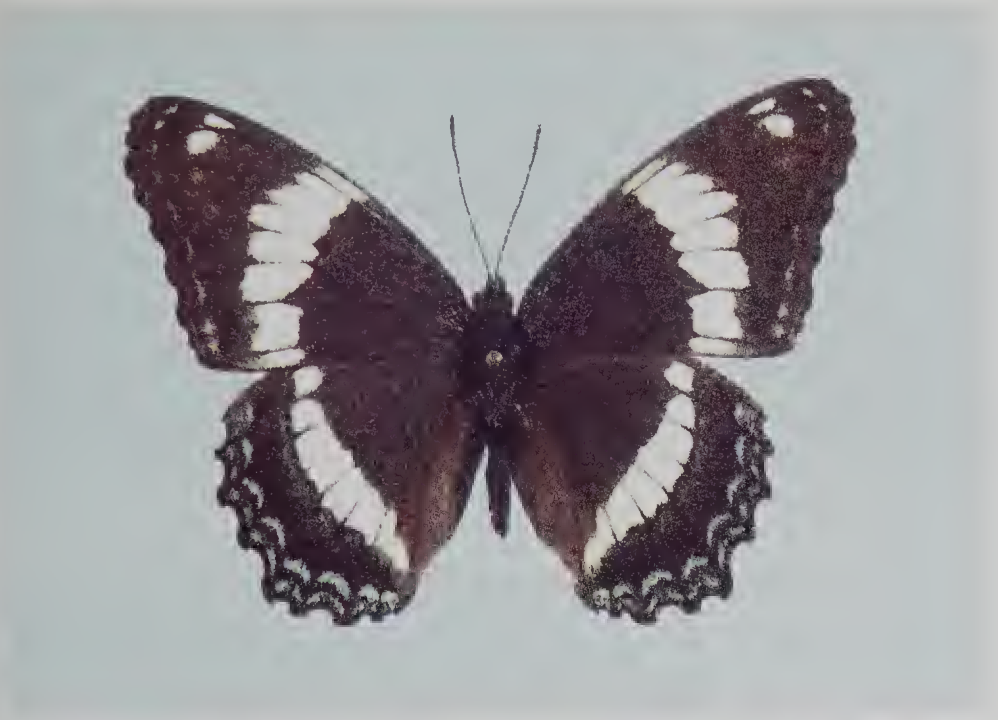
Description: Wingspan 3.0–4.0 in. Sexes similar, but females much larger. Upperside black with broad white postmedian band across both wings. Some blue and red on submargin of hindwing. Underside similar with addition of prominent basal and submarginal orange-red spots.

Similar Species: This subspecies of *L. arthemis* occurs rarely in extreme northern Illinois, where it is unique.

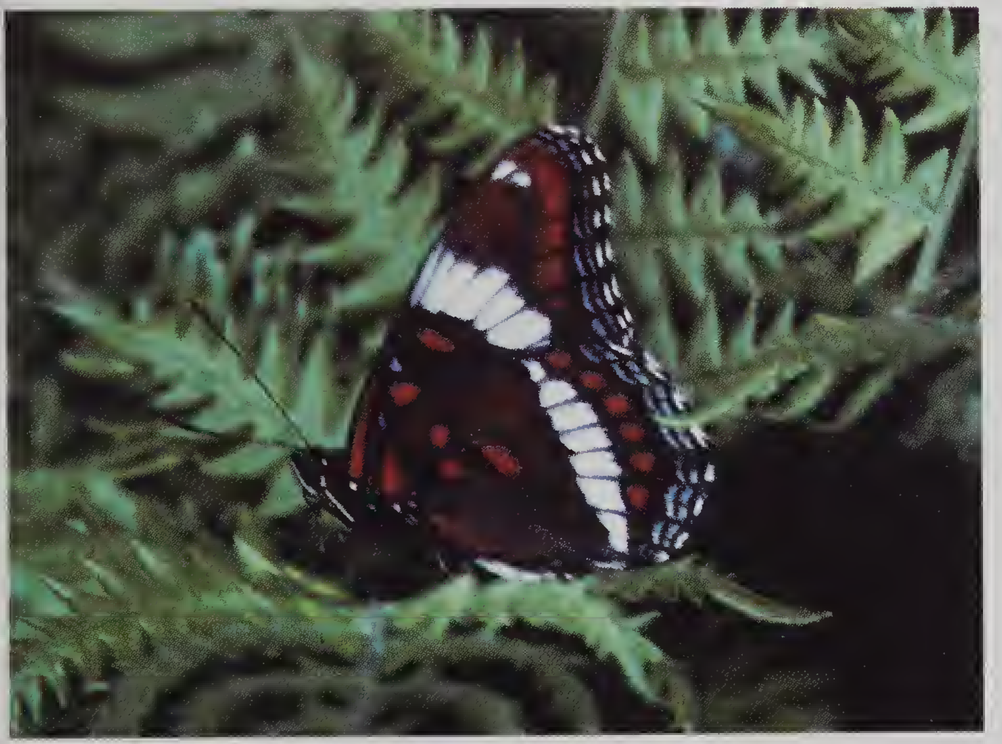
Habitat: A forest insect, also found in suburban and urban areas where host trees are present.

Natural History: Similar to the Red-spotted Purple.

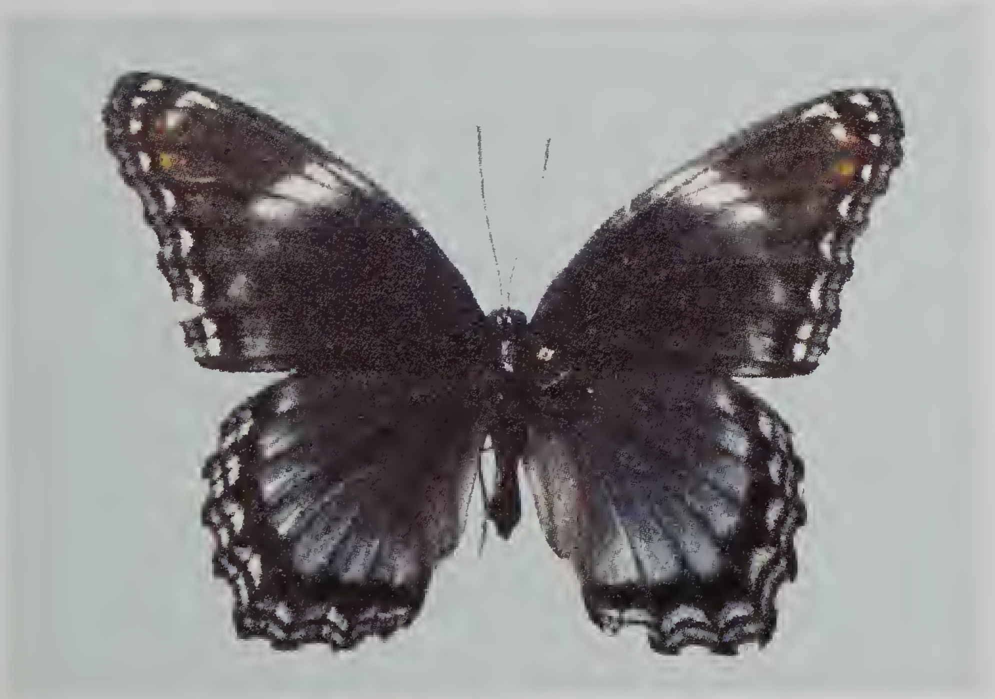
Status: Typical White Admirals occur farther north in Wisconsin. Intergrades and rarely pure individuals occur sparingly in Illinois. Occasional individuals with partial white bands are found within the Red-spotted Purple population downstate. We illustrate one such specimen captured in Urbana, Illinois.



Male, White Admiral,
Emmet County, MI.



Male, White Admiral,
Mackinac County, MI.



Female, White Admiral/
Red-spotted Purple
intergrade, upperside,
Champaign County, IL.

Viceroy **Nymphalidae, Limenitidinae**

Limenitis archippus (Cramer)

Description: Wingspan 3.0–4.0 in. Sexes similar, with females often much larger than males. Upperside bright orange-brown with black borders within which there is a single marginal row of white spots. On the hindwing there is a conspicuous black postmedian line. Underside similar except that the hindwing and distal part of the forewing are buff. The base of the forewing is orange-brown.

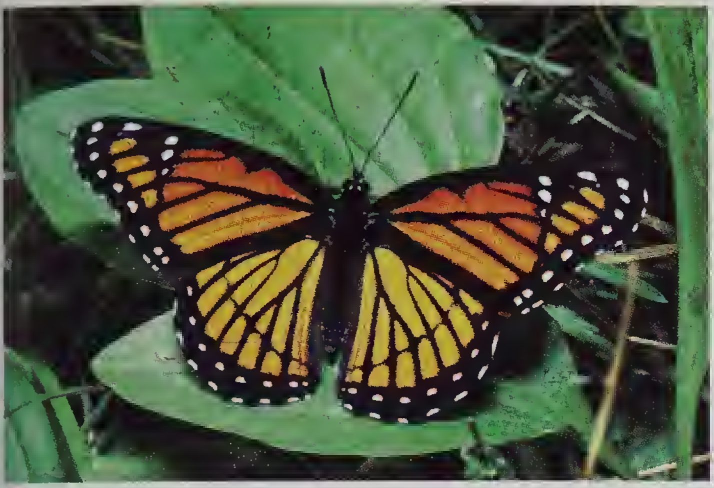
Similar Species: The Monarch is larger and does not have a black postmedian line across the hindwing.

Habitat: Along streams, marshy areas, wet roadsides where willows (*Salix* spp.), the larval food plants, are found.

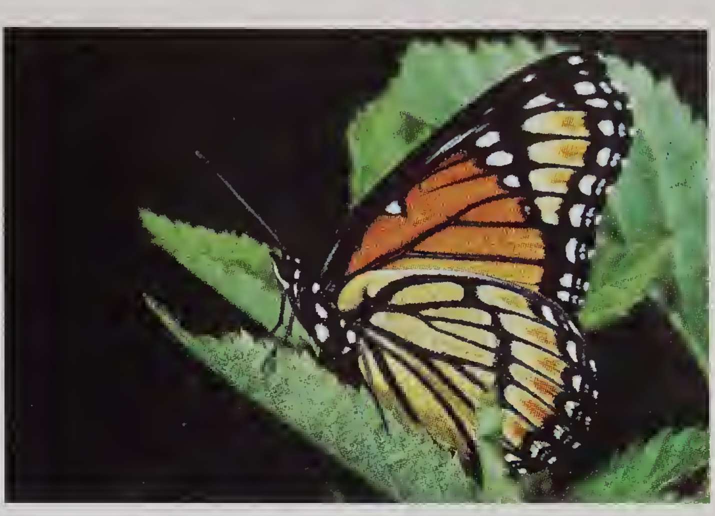
Natural History: Two or three generations per year. Usually most plentiful in July and August. The adults tend to remain close to the larval hosts. Males both perch and patrol in search of females. Females lay eggs on the larval hosts, favoring willows (*Salix* spp.), but also on poplars (*Populus* spp.), apple (*Malus pumila*), wild cherries (*Prunus* spp.), and plums. The species overwinters as partially grown larvae. Adults feed on ripe fruit, sap flows, carrion, and animal feces, as do our other *Limenitis* spp., but also readily nectar on flowers, such as swamp milkweed.

Status: Statewide and common.

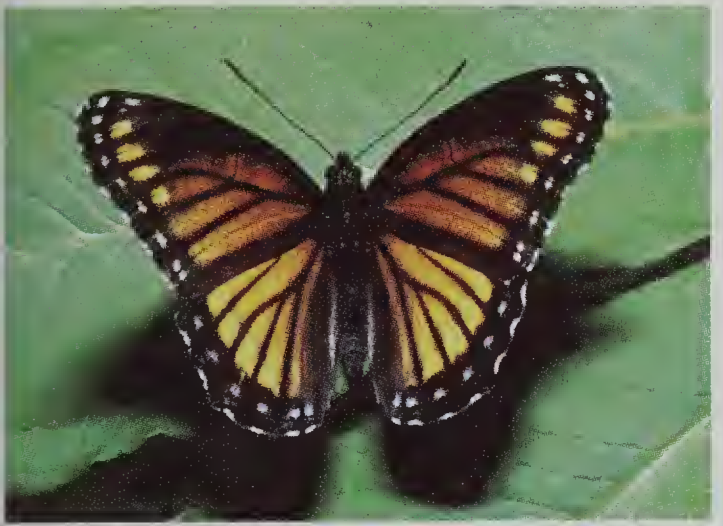
Remarks: The Viceroy is a mimic of the toxic and unpalatable Monarch. There is evidence that the mimicry is weakly Müllerian; that is, the Viceroy has some toxicity in its own right, and is more than a nontoxic Batesian mimic. The Viceroy and the Red-spotted Purple rarely hybridize. The hybrids are apparently nonfertile. We show one such individual captured in Iroquois County.



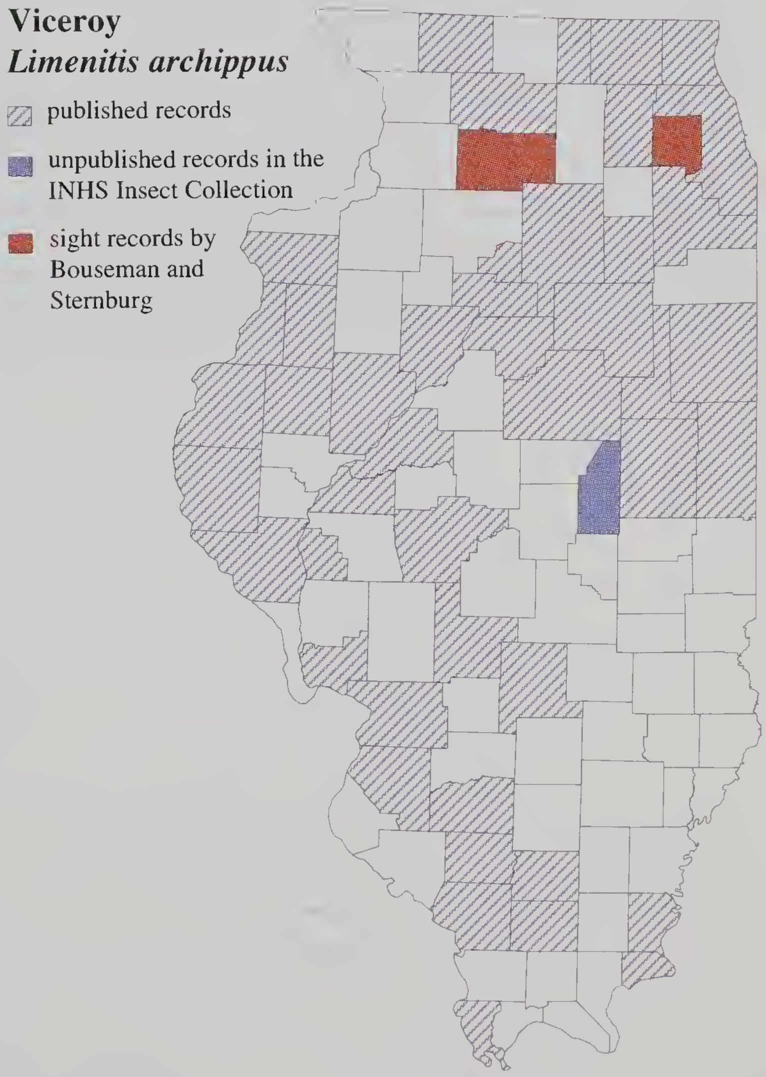
Male, Viceroy, Champaign County, IL.



Viceroy, Champaign County, IL.



Male, Viceroy/Red-spotted Purple interspecific hybrid, Iroqouis County, IL.



Viceroy
Limenitis archippus

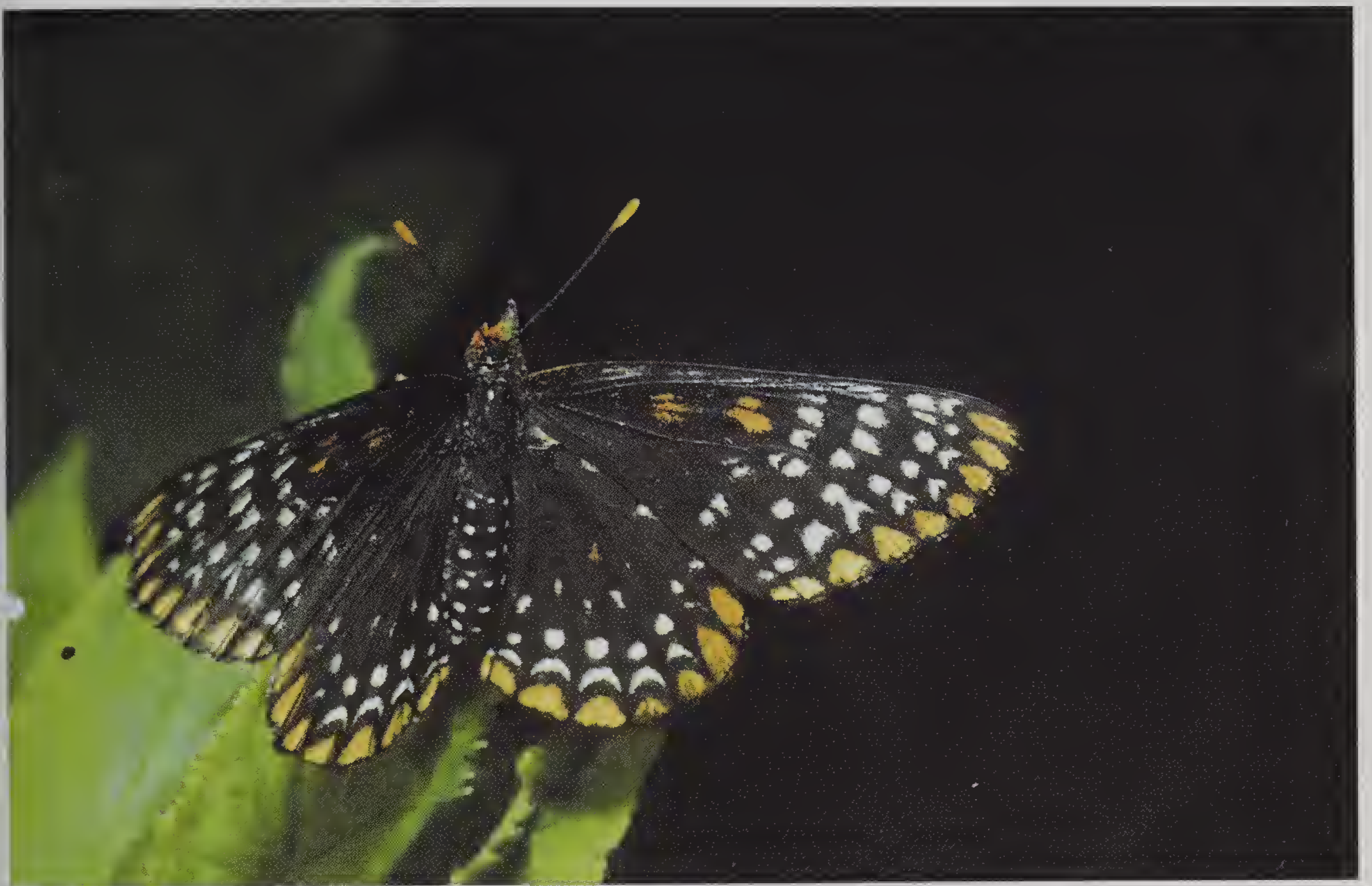
▨ published records

🟦 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg

Subfamily Nymphalinae

Most of our species belong in this group. Collective common names for some species groups are the lady butterflies (*Vanessa*, three species), the angle-wings (*Polygonia*, five species), the tortoiseshells (*Nymphalis*, three species), the Buckeye (*Junonia*, one species), the crescents (*Phyciodes,* one species), the checkerspots (*Chlosyne*, three species), and the Baltimore (*Euphydryas*, one species). Adults of some take nectar as the principal source of their nourishment, but others rarely visit flowers, and instead are found feeding on the liquids from sap flows, fermenting fruit, carrion, and animal feces. Larvae of this subfamily have many branched spines along the body.



Male, Baltimore perching, Lee County, IL.

Red Admiral

Nymphalidae, Nymphalinae

Vanessa atalanta (Linnaeus)

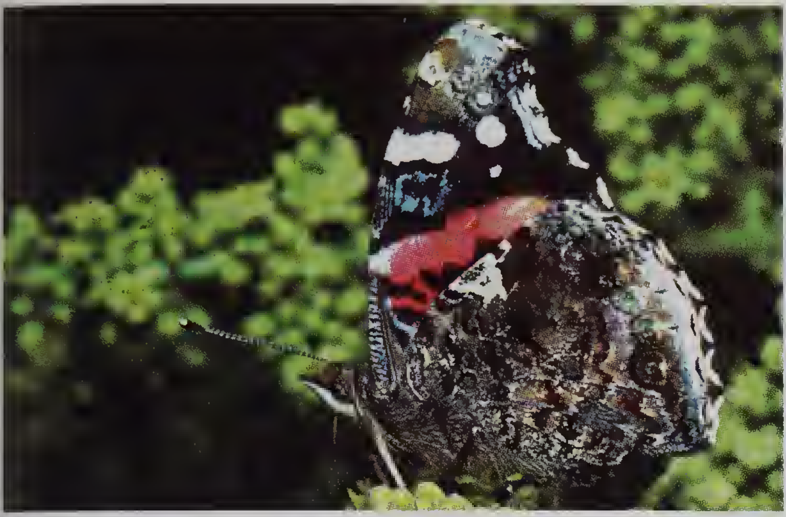
Description: Wingspan 2.2–3.0. Sexes similar. Upperside forewing apex has white spots and postmedian red-orange band. The hindwing has a red-orange distal margin. Underside of forewing has red-orange, blue, and white markings along edge. The underside of the hindwing is dark with complex markings that suggest bark.

Similar Species: None. The pattern is unique and easily recognized.

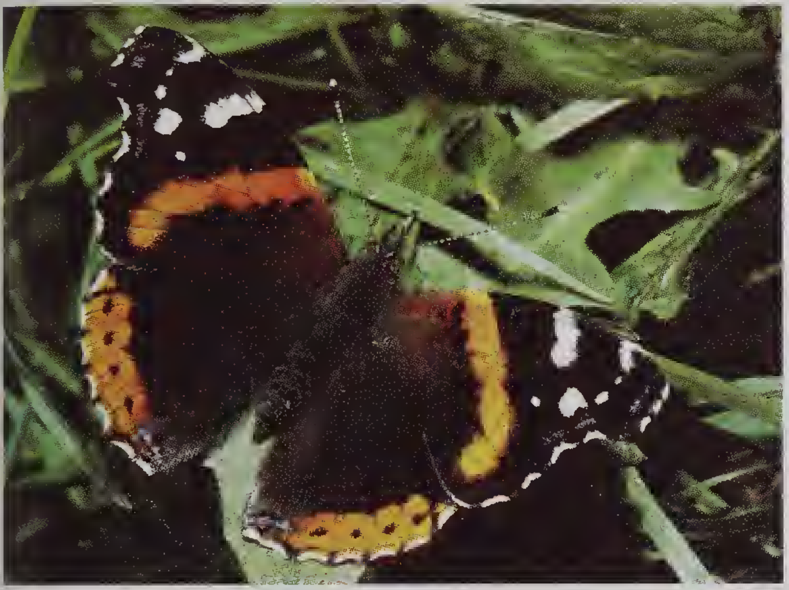
Habitat: Edge of forests, brushy fields, roadsides, urban areas, often along streams.

Natural History: Two or more generations per year. Can overwinter as a pupa and as an adult, depending on severity of weather. Probably many adults migrate. In east-central Illinois in early April, individuals appear that are very worn, probably migrants. At the same time, some are seen in immaculate condition, obviously newly emerged, and very likely from locally overwintering pupae. Males are territorial, especially in late afternoon and evening. They select a perch where the sun shines and dart out at passing objects as they search for females. Eggs are laid on various Urticaceae, including nettles (*Urtica* spp.), false nettles (*Boehmeria* spp.), pellitory (*Parietaria pennsylvanica*), and others. Occasionally hops are selected. Larvae feed on the leaves. Adults feed at flowers for nectar and visit overripe fruit, sap flows, carrion, and animal feces. They often take moisture from wet areas along streams. The adults are fast and agile fliers. When settled, the red bands show if the wings are kept open, as when basking. Closing the wings renders the insect cryptic, especially when on bark.

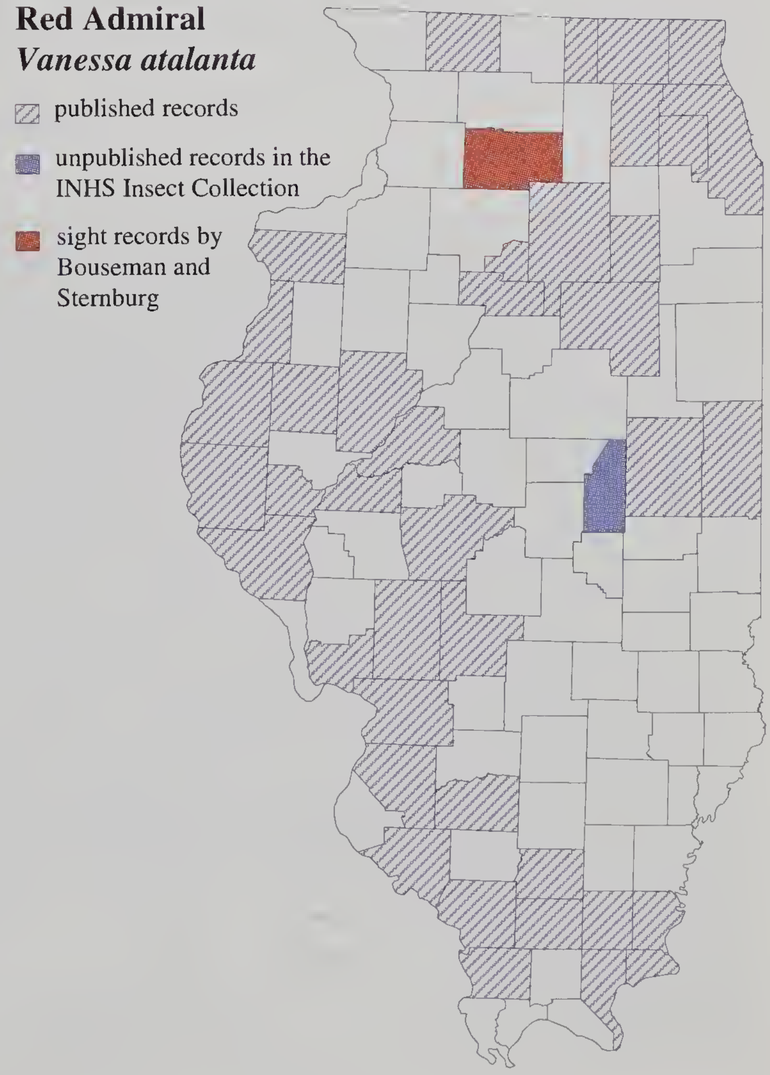
Status: Statewide and common. A frequent visitor to suburban gardens and city parks.



Red Admiral, Champaign County, IL.



Male, Red Admiral, Champaign County, IL.


Red Admiral
Vanessa atalanta
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

American Painted Lady Nymphalidae, Nymphalinae

Vanessa virginiensis (Drury)

Description: Wingspan 2.2–2.6 in. Sexes similar. Apex of forewing has the typical white spots of *Vanessa* spp. Behind this there is a white spot in an orange field. The basal two-thirds of the underside of the hindwing has an intricate pattern of white lines, and there are two large submarginal eyespots.

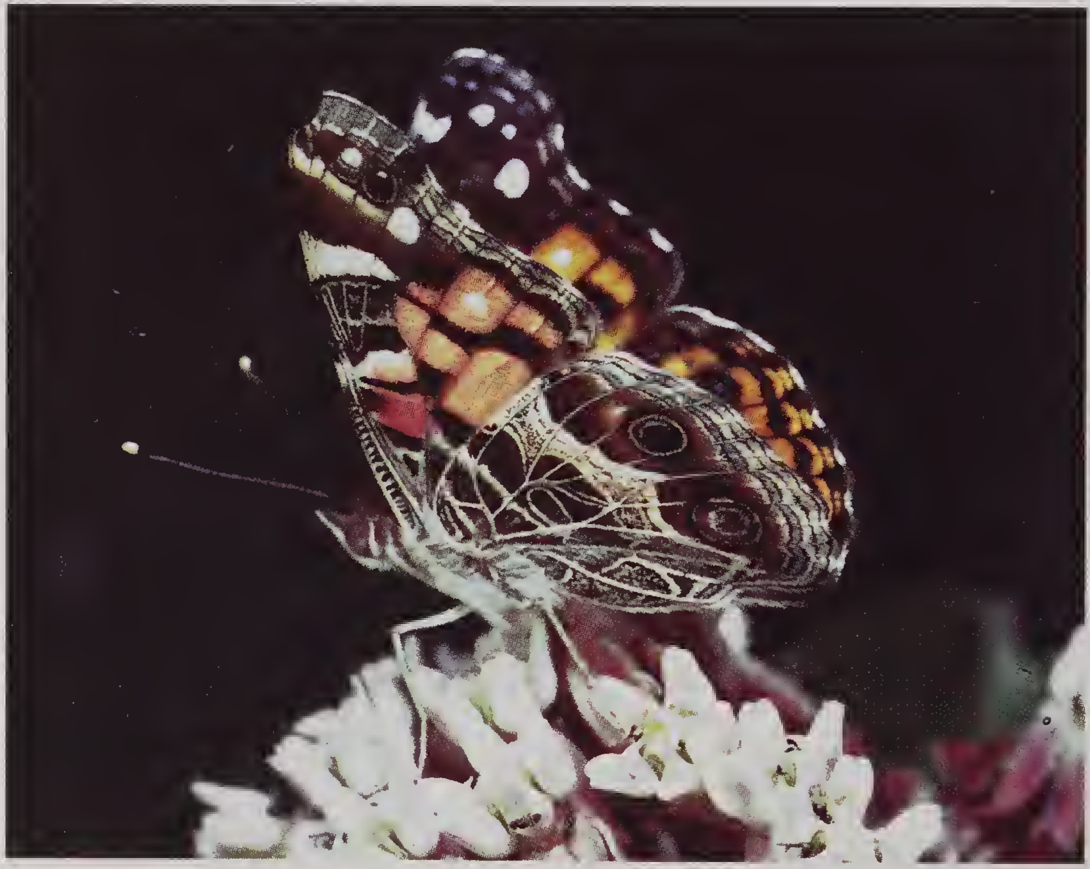
Similar Species: The Painted Lady has four small submarginal black spots.

Habitat: Open areas, roadsides, clearings, gardens, fields with low vegetation.

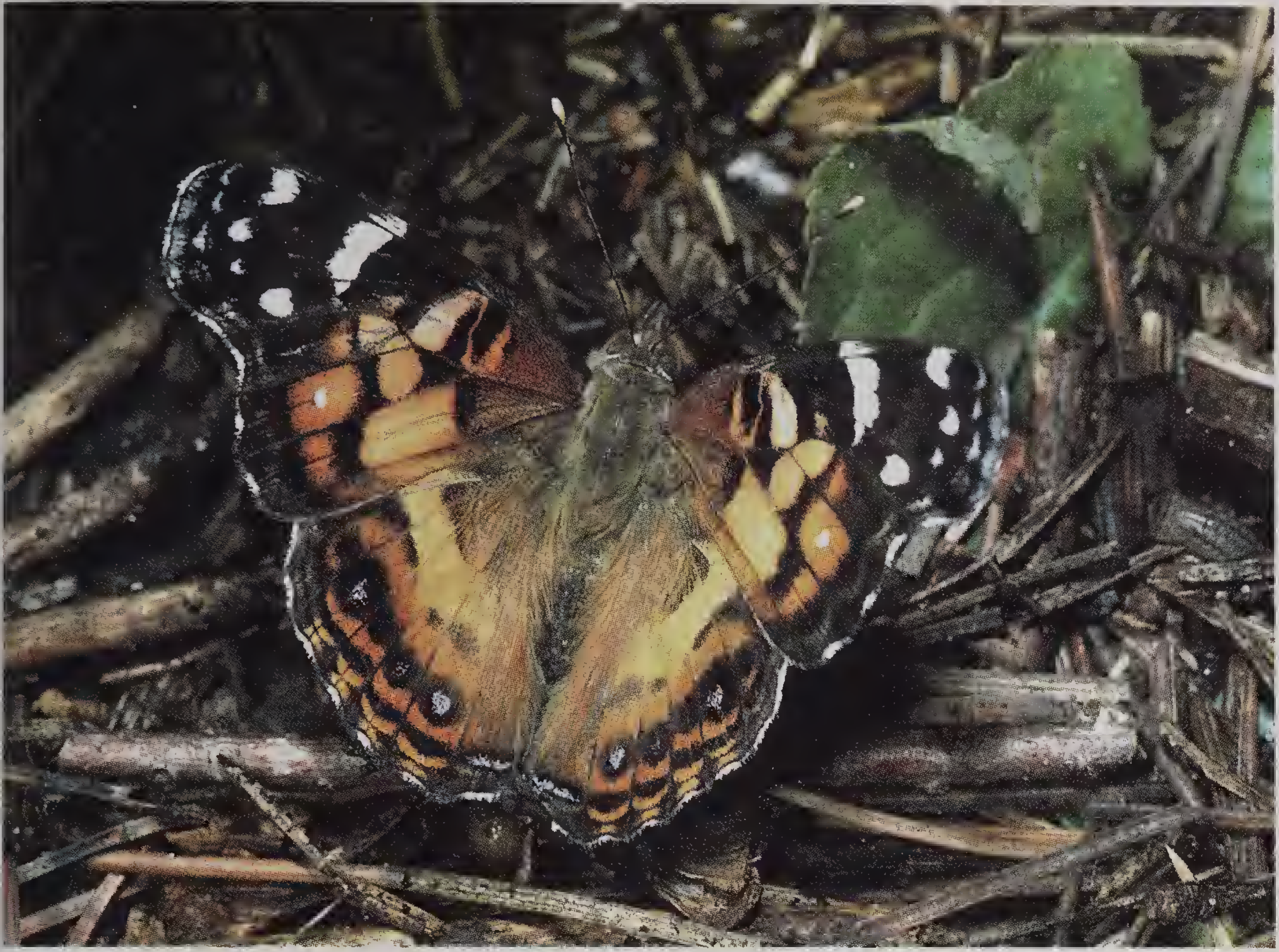
Natural History: Bivoltine. Overwinters as an adult. It probably does not survive severe winters in the north and is therefore repopulated by migrants from farther south each year. Populations vary greatly from year to year. Larvae feed on pussy-toes (*Antennaria* spp.), pearly everlastings (*Anaphalis margaritacea*), burdock (*Arctium* spp.), thistles (*Cirsium* spp.), and other composites and mallows (Malvaceae). Adults take nectar from many kinds of flowers, and also will be found on carrion and sap flows.

Status: Common to uncommon. Statewide.

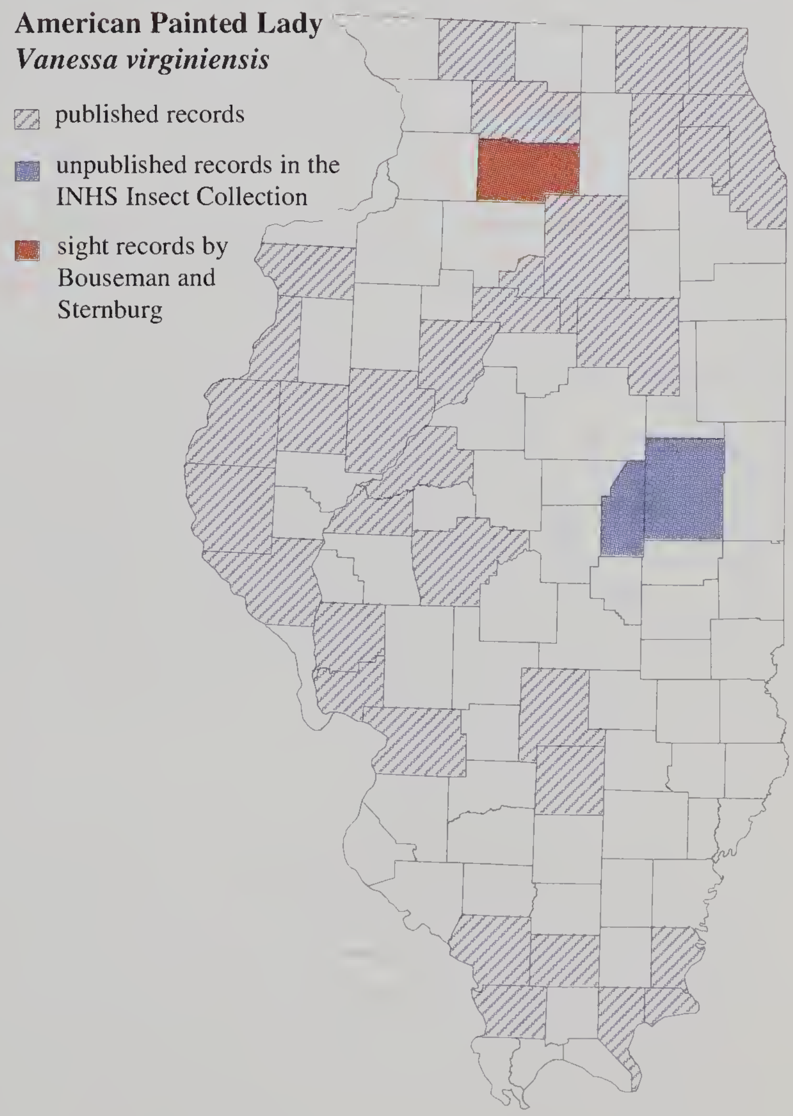
Remarks: Other names used in the past are Hunter's Butterfly and Virginia Lady.



American Painted Lady, Piatt County, IL.



American Painted Lady, Iroquois County, IL.


American Painted Lady
Vanessa virginiensis
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Painted Lady — Nymphalidae, Nymphalinae

Vanessa cardui (Linnaeus)

Description: Wingspan 2.25–3.0 in. Sexes similar. Tawny, with a pink blush in young adults. The apex of the forewing is black with white spots, typical of *Vanessa* spp. There is a row of five small black spots on the upperside of the hindwing. Some specimens have blue scaling. On the underside, the hindwing is cryptic, blending in with some flowers, and there are four small submarginal eyespots.

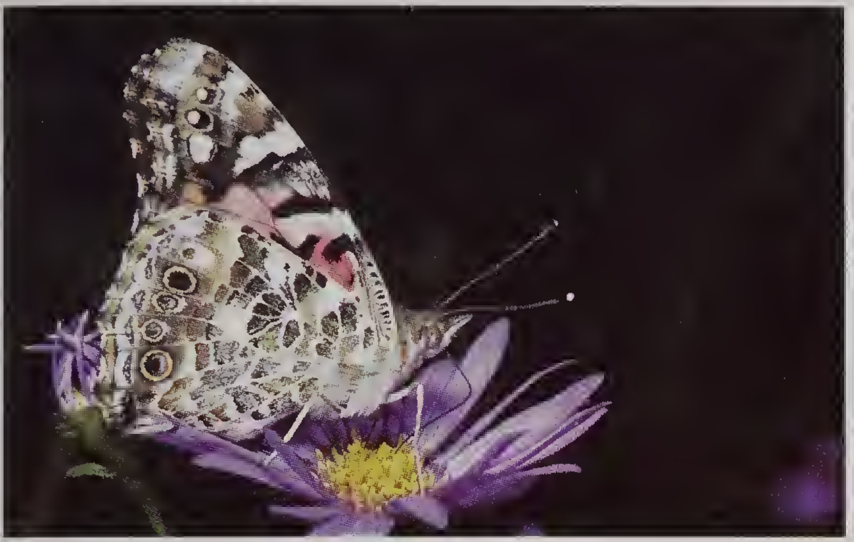
Similar Species: The American Painted Lady has two large submarginal eyespots on the underside of the hindwing.

Habitat: Open areas almost anywhere, roadsides, parks, gardens, prairies, meadows.

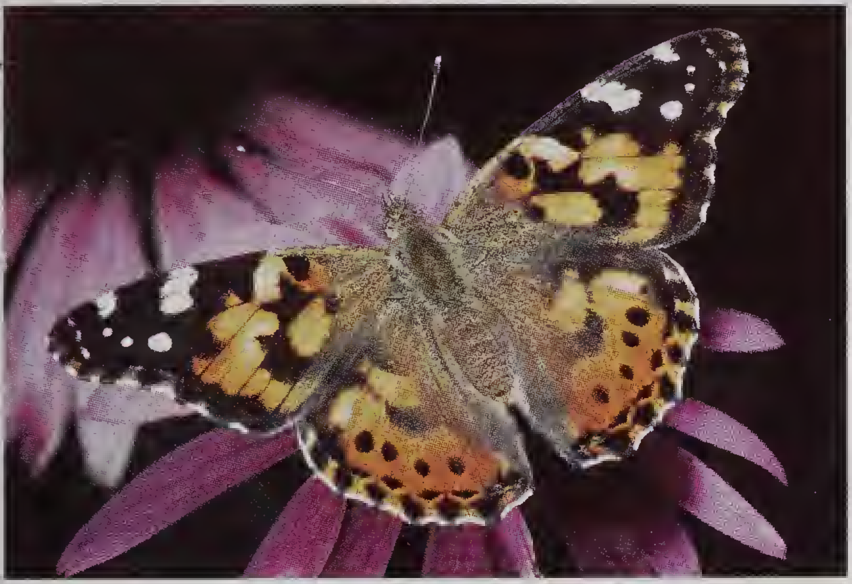
Natural History: A multivoltine and migratory butterfly. It is unlikely to survive an Illinois winter, and the state must be repopulated each year. In some years it is scarce, in others it may be one of the most abundant butterfly species. Larvae are polyphagous, known to feed on over 100 different plant species. Composites (Asteraceae), mallows (Malvaceae), and legumes (Fabaceae) are favored. It is occasionally common enough to be a minor pest on soybeans. Adults take nectar from a wide variety of plant species. They are often seen at thistles and other composites.

Status: In most years it is common to abundant. In some years it may be scarce. The vagaries of migration each year are no doubt responsible.

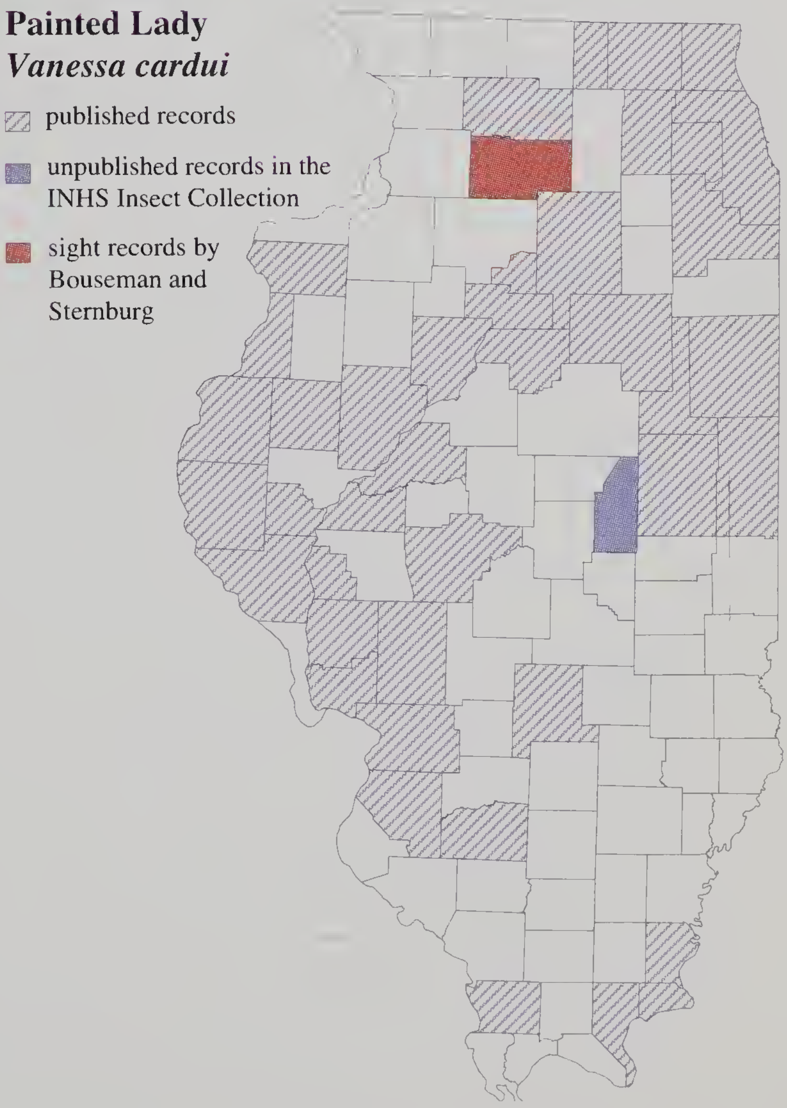
Remarks: The species has a greater world distribution than any other butterfly. It occurs in North America, Eurasia, Africa, and many islands of the world. It is replaced in Australia by a closely related species and is absent in South America. The butterfly is highly migratory but unable to survive freezing temperatures, so that within much of its range, repopulation is necessary. The species is also known as the Cosmopolite or the Thistle Butterfly.



Painted Lady, Champaign County, IL.



Painted Lady, Champaign County, IL.



Painted Lady
Vanessa cardui

▨ published records
🟪 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Buckeye — Nymphalidae, Nymphalinae

Junonia coenia (Hübner)

Description: Wingspan 2.0–2.5 in. Sexes similar. Light brown with conspicuous eyespots, one large one on the forewing and two on the hindwing. There is an irregular white submarginal band across the forewing and two orange bars at the anterior margin. On the underside, the hindwings have two small eyespots and a mottled cryptic appearance. Two different forms can occur. In one the colors below are a light yellow-brown, linked to dry weather. The other extreme, occurring during wet seasons, is darker, tending toward orange-red.

Similar Species: None in Illinois. The butterfly is unique.

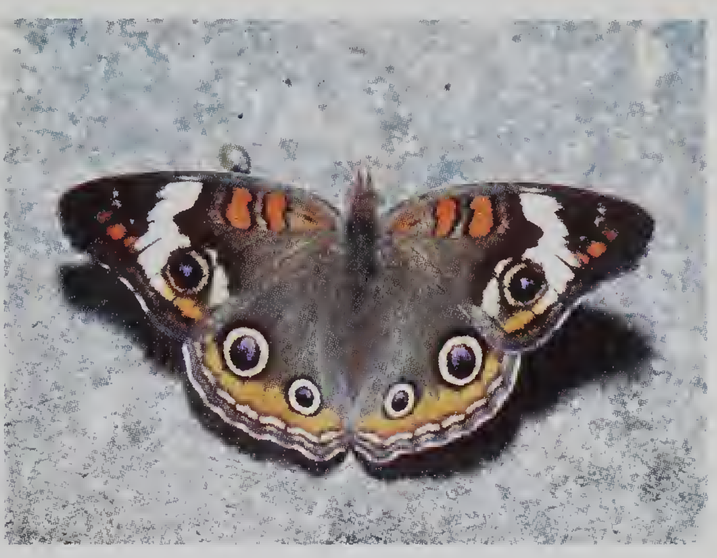
Habitat: Open areas where there is low vegetation, meadows, pastures, roadsides, parks, and waste areas.

Natural History: The species is migratory, rarely surviving an Illinois winter, but recolonizing the state anew each year. Adults appear in April, followed by a succession of generations, becoming most numerous in late summer. Adults fly low to the ground, often settling with the wings open. They are very wary and usually difficult to approach. Larval hosts include plantain (*Plantago* spp.), toadflax (*Linaria* spp.), loosestrife (*Lythrum* spp.), snapdragon (*Antirrhinum majus*), false foxglove (*Aureolaria* spp.), and related plants. Adults nectar at many flowers and visit damp ground. They usually rest with the wings widespread.

Status: Common in some years. Sometimes uncommon or scarce. Statewide. A migrant species, breeding in the state from May to September.

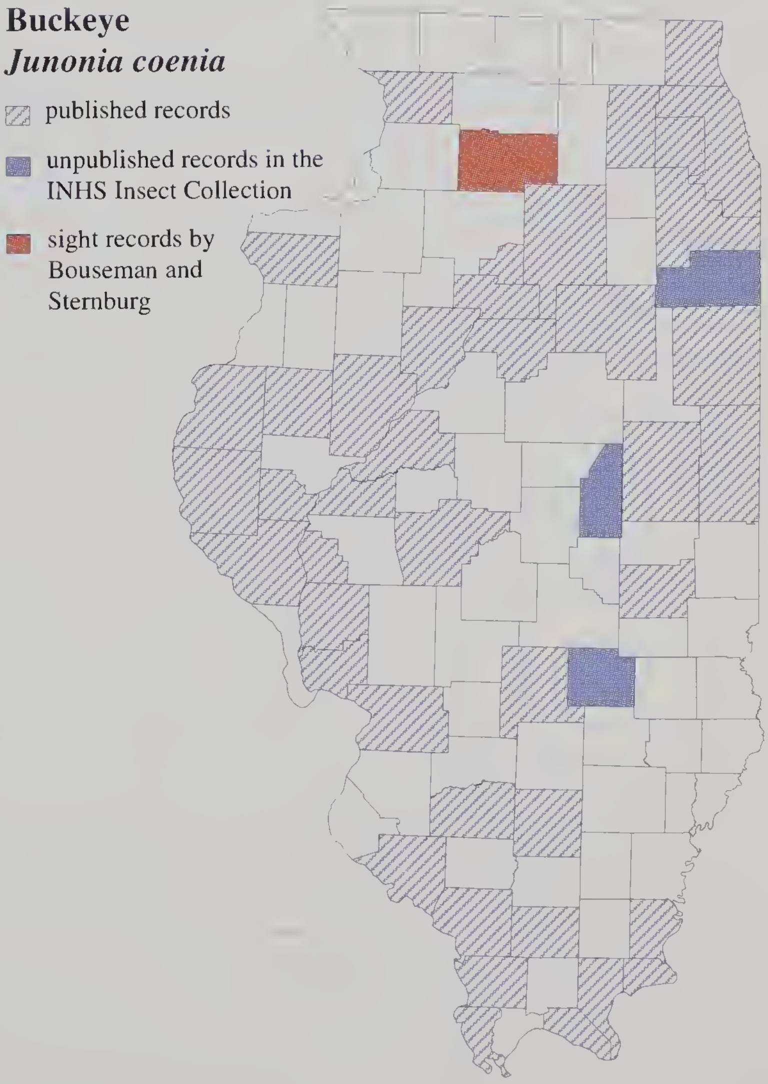
Remarks: Placed in the genus *Precis* by some.

Buckeye, Champaign County, IL.



Buckeye, Piatt County, IL.

Buckeye, Champaign County, IL.


Buckeye
Junonia coenia
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Compton Tortoiseshell Nymphalidae, Nymphalinae

Nymphalis vau-album j-album (Boisduval and LeConte)

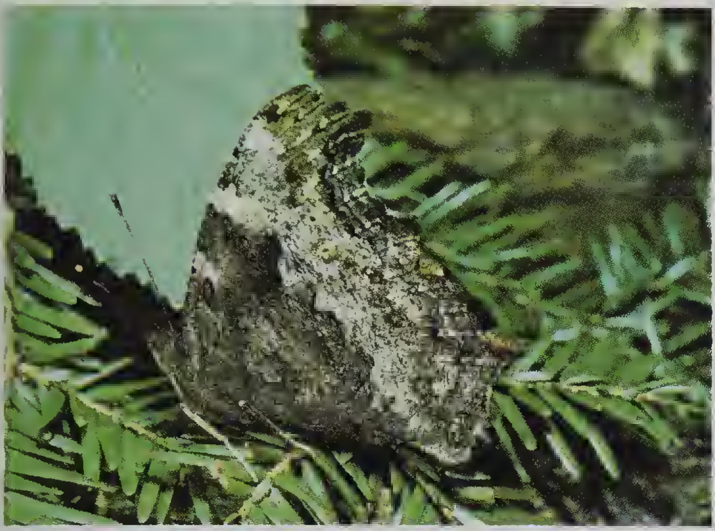
Description: Wingspan 2.8–3.2 in. Sexes similar. Upperside tawny with black spots and lines. There is a prominent white spot on the costal margin of both the fore- and hindwings. The undersides of the wings resemble dead leaves with a brown color. The wing margins are irregular as in other *Nymphalis* species.

Similar Species: Compton Tortoiseshell resembles a large *Polygonia.* The latter have more irregular wing margins and are all smaller. The placement of spots differs and there are no silver marks on the underside of the hindwing in Compton Tortoiseshells.

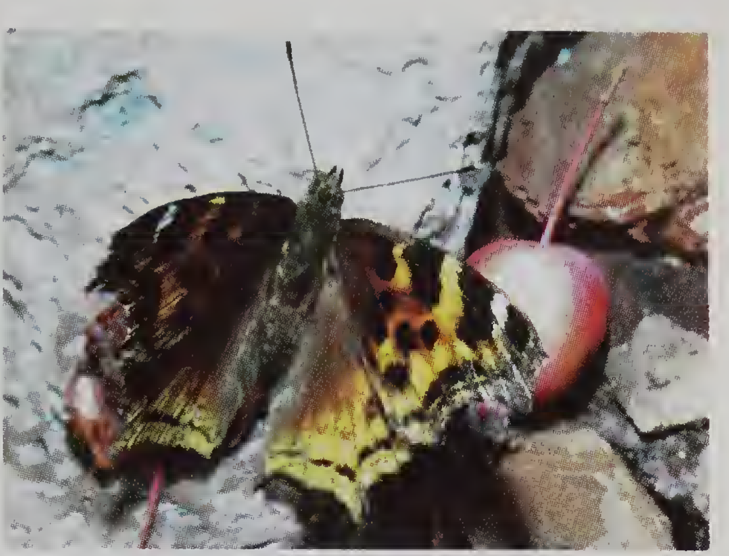
Habitat: Forests, wooded areas, brushy areas, parks.

Natural History: Univoltine. Their life history is much like that of the Mourning Cloak. Adults emerge in June and July, fly until the cold of winter, hibernate in hollow logs and the like, become active in the spring, and survive until June. They thus have a long life as an adult butterfly. Eggs are laid in May and June. Larvae feed on willows (*Salix* spp.), birches (*Betula* spp.), and aspens (*Populus* spp.). Adults feed mainly on overripe fruit, sap flows, carrion, and animal feces.

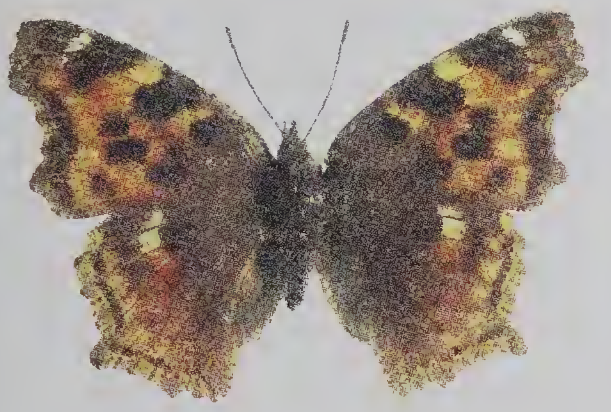
Status: Scarce in Illinois, occurring sparingly in the northeast counties.



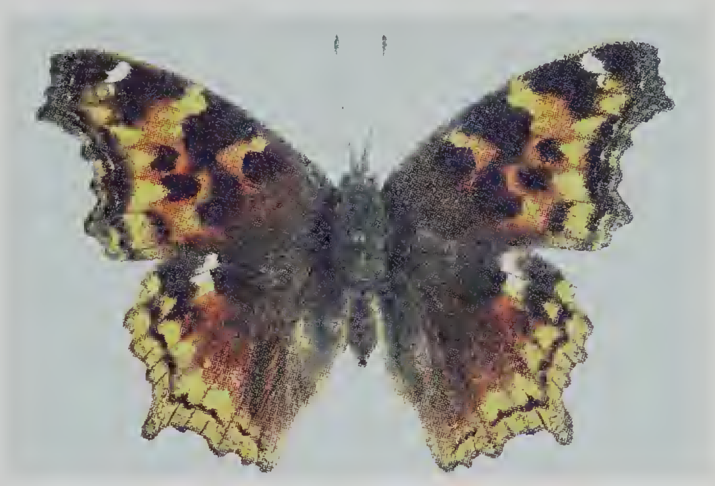
Compton Tortoiseshell, Emmet County, MI.



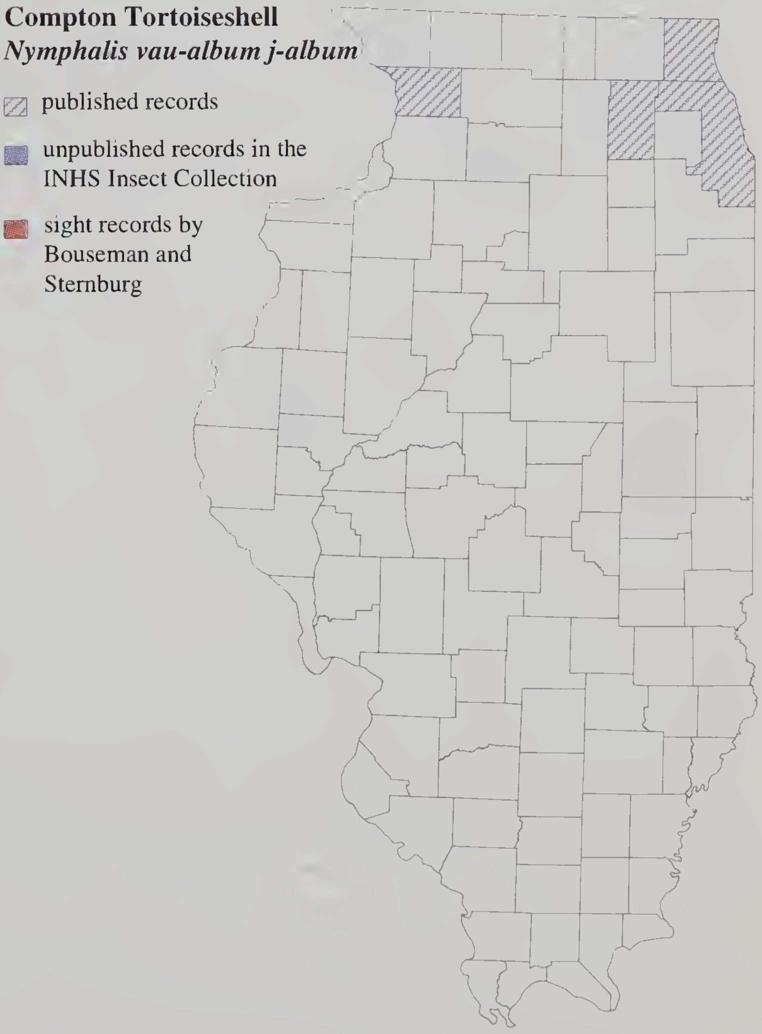
Compton Tortoiseshell, Emmet County, MI.



Compton Tortoiseshell, upperside, Cook County, IL.



Compton Tortoiseshell, Polk County, WI.



Compton Tortoiseshell
Nymphalis vau-album j-album

▨ published records
▨ unpublished records in the INHS Insect Collection
▨ sight records by Bouseman and Sternburg

Milbert's Tortoiseshell — Nymphalidae, Nymphalinae

Nymphalis milberti (Godart)

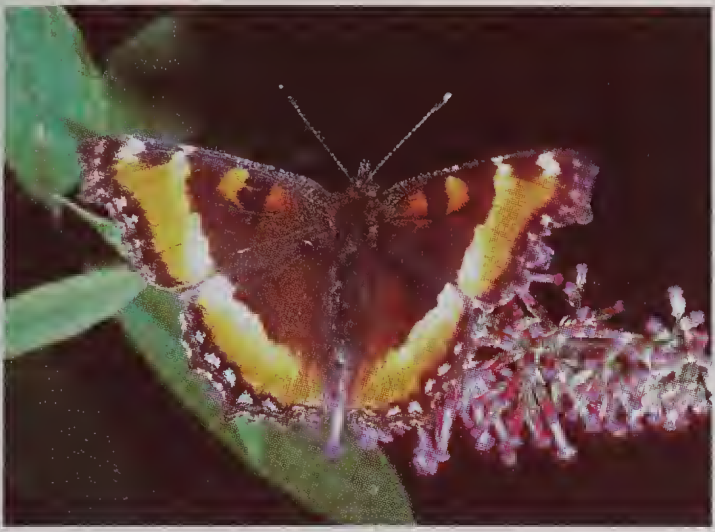
Description: Wingspan 1.75–2.25 in. Sexes similar. Wing margins irregular, with a short taillike projection on the hindwing. On the uppersides of both wings there are black and blue spots along the margins and a broad bright orange and yellow postmedian band. The undersides of the wings are cryptic, resembling bark.

Similar Species: None in Illinois. It can be confused with no other butterfly.

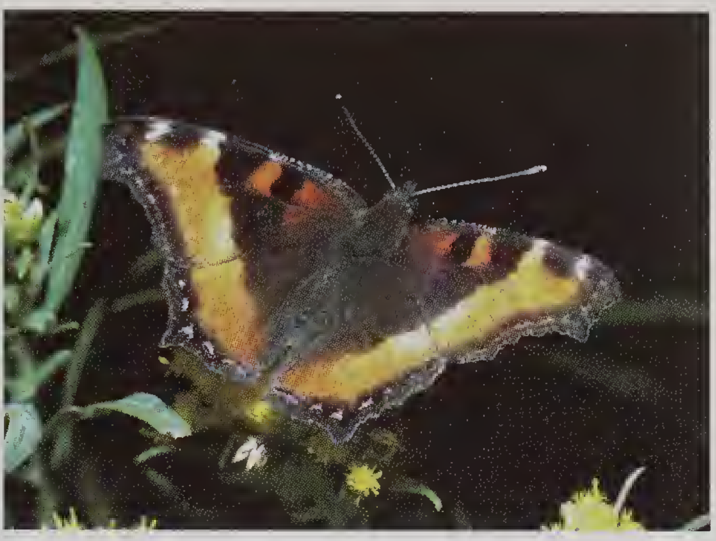
Habitat: Woodland edges and glades, parks, gardens, roadsides, and areas where nettles are nearby, favor establishment of local populations.

Natural History: Multivoltine, two or more broods. Adults hibernate in hollow trees, logs, and similar sites. Adult males perch in anticipation of passing females. Females lay eggs in large masses on the underside of nettle leaves (Urticaceae), the primary larval host. Both sexes visit flowers to obtain nectar, and also feed on overripe fruit, at sap flows, on carrion, and on feces. The species flies from May through October.

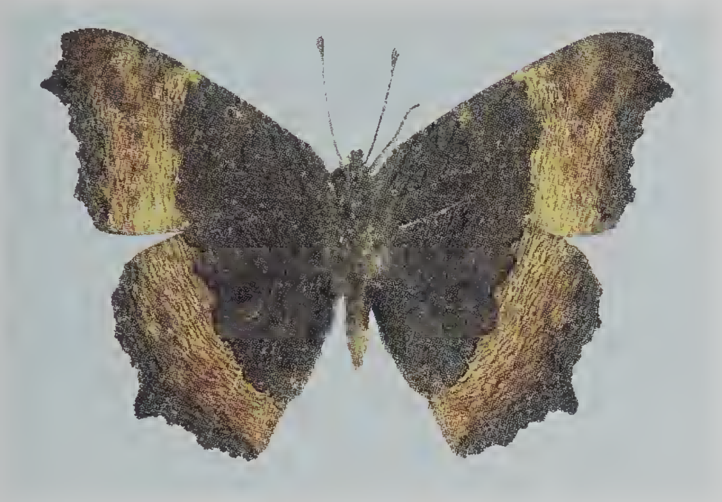
Status: May be absent in some years, then reappear for a year or two in the more northern counties. We have seen it common at a prairie area in Lee County in 1 year (1997) of a 10-year period. It was common in east-central Illinois from 1967 to 1969, then not seen again until 1997. The species apparently has periodic range extensions from Wisconsin into Illinois.



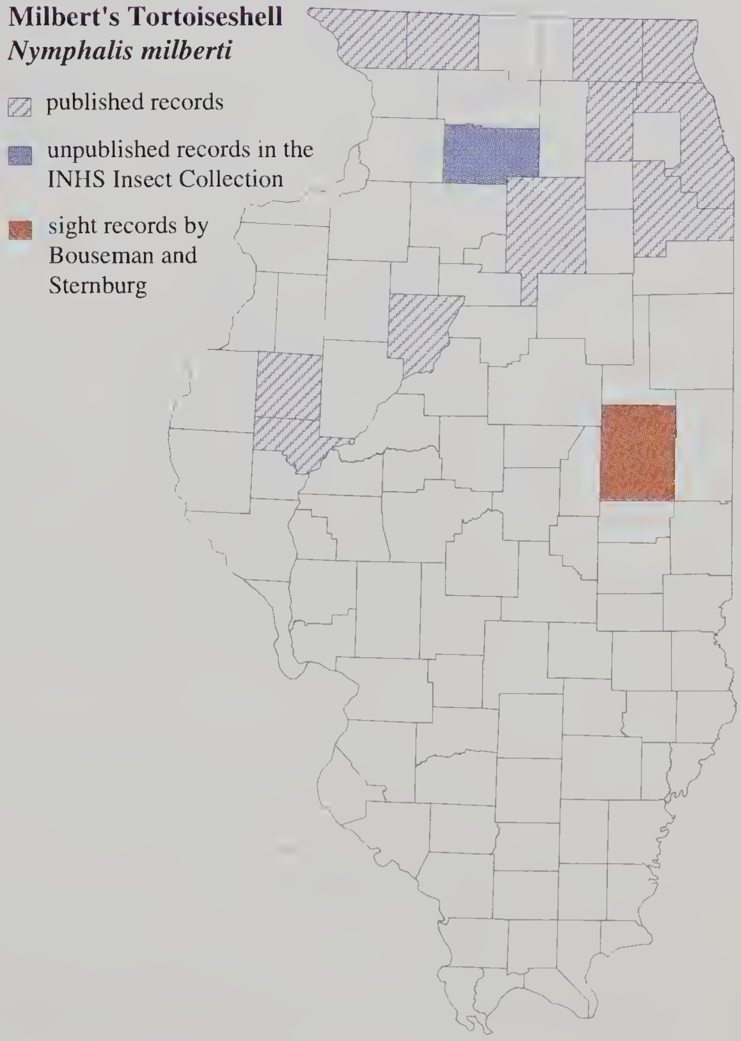
Male, Milbert's Tortoiseshell, Champaign County, IL.



Male, Milbert's Tortoiseshell, Lee County, IL.



Male, Milbert's Tortoiseshell, underside, Lee County, IL.


Milbert's Tortoiseshell
Nymphalis milberti
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Mourning Cloak — Nymphalidae, Nymphalinae

Nymphalis antiopa (Linnaeus)

Description: Wingspan 3.2–4.0 in. Sexes similar. Upperside is a dark brown with a purplish cast. The borders are yellow, fading to near white in old individuals (they can live 11 months as adults). There are submarginal blue spots adjacent to the yellow border. On the undersides, the wings are striated with dark lines, with a close resemblance to tree bark. The margins of the wings are irregular as in others of the genus.

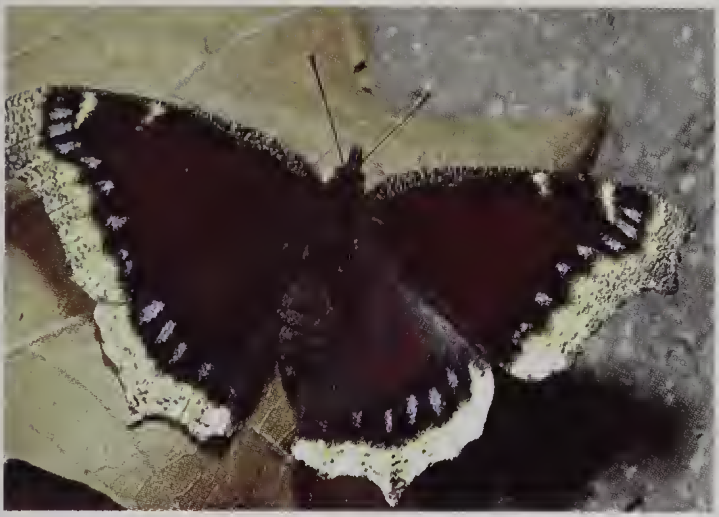
Similar Species: None. This is a very distinctive insect.

Habitat: Woodlands, suburban and urban parks and gardens.

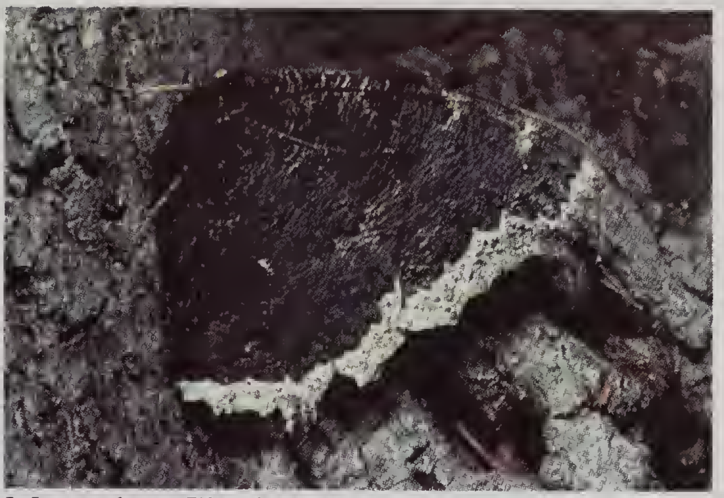
Natural History: Mostly univoltine. There may be a partial second generation in more southern areas. Adults emerge in June and July, fly until cold fall weather, and then hibernate in hollow logs, tree holes, and similar sites. On warm winter days they may become active temporarily, going back to winter quarters when the temperature drops. In the spring both sexes become active, males perch awaiting females, and the mated females then lay eggs in masses. Larval host plants include willow (*Salix* spp.), birch (*Betula* spp.), elm (*Ulmus* spp.), hackberry (*Celtis* spp.), and others. The larvae are gregarious, but do not spin silken nests. They develop rapidly and become adults in June or July. This is our longest-lived butterfly, the adults surviving up to 11 months. Adults visit overripe fruit, sap flows, carrion, and feces. They will also take nectar from some flowers. One of us (J.G.S.) has occasionally seen the species on milkweed flowers.

Status: Statewide. Uncommon to common.

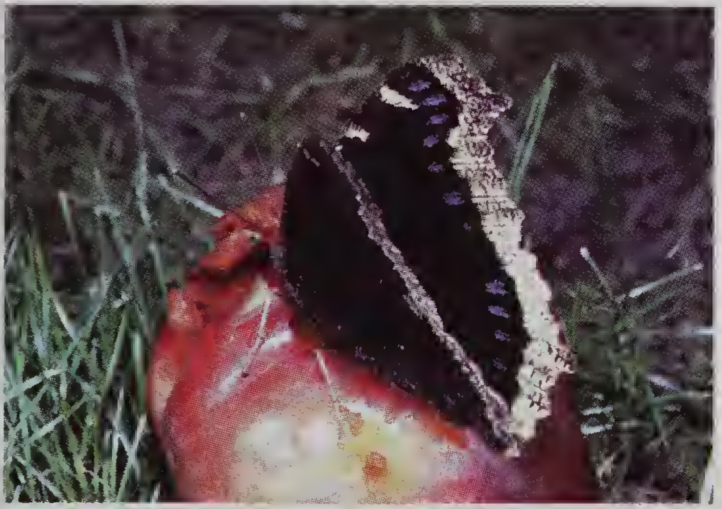
Remarks: This butterfly is known as the Camberwell Beauty in England, where it only rarely occurs. The species ranges from Europe through temperate Asia to North America, where it can be found throughout the U.S. and at higher elevations south to Guatemala and Mexico. In flight, the insect is powerful and very wary, not easily approached unless distracted by feeding.



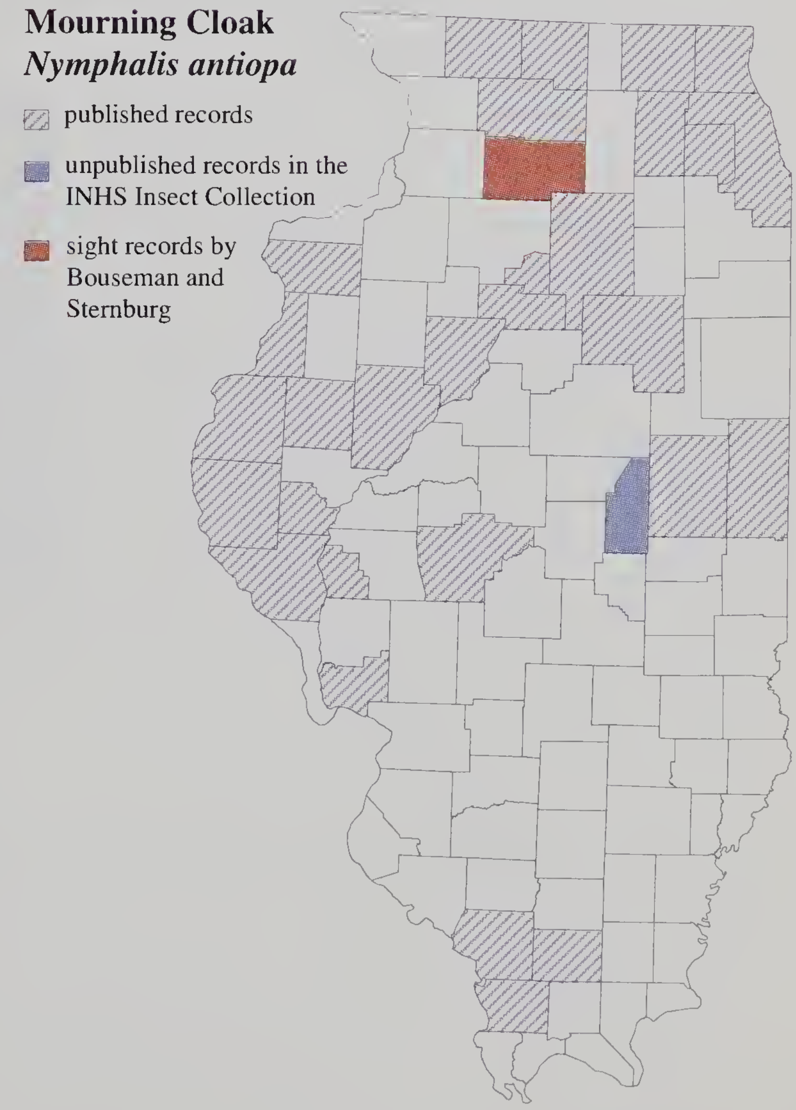
Mourning Cloak, Champaign County, IL.



Mourning Cloak, Vermilion County, IL.



Mourning Cloak, Champaign County, IL.


Mourning Cloak
Nymphalis antiopa
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Question Mark Nymphalidae, Nymphalinae

Polygonia interrogationis (Fabricius)

Description: Wingspan 2.4–3.0 in. Sexes with similar upperside, but dimorphic underside. Seasonally dimorphic. The upperside of the forewings are orange with black spots in both seasonal forms. However, in the summer form, the uppersides of the hindwings are mostly black, whereas in the fall form they are orange with black spots like the forewings. Both seasonal forms have the short hindwing tail tipped with violet. The undersides of the wings are cryptic, resembling a dead leaf. The irregular wing margins add to this effect. In the summer form, markings on the underside are more distinct and browner than in the fall form where the wings tend to be more orange-brown. A defining character is the double silver mark that resembles a "question mark" on the underside of the hindwing.

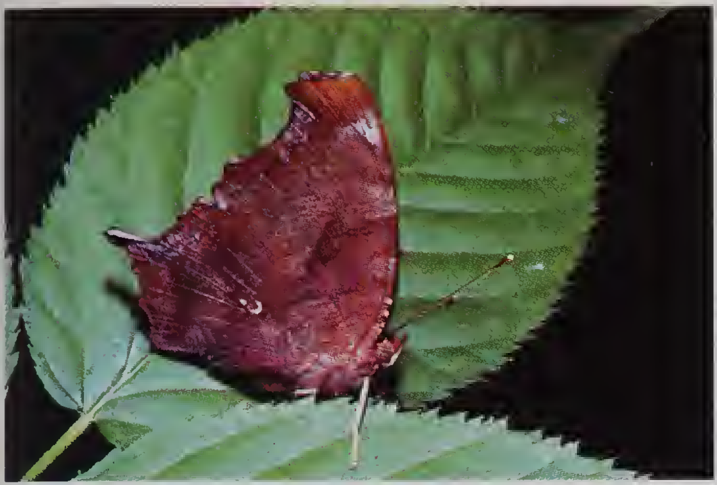
Similar Species: The Comma has a single silver mark resembling a "comma." The Gray Comma also has a single comma-shaped mark, with the wings below gray and not brown.

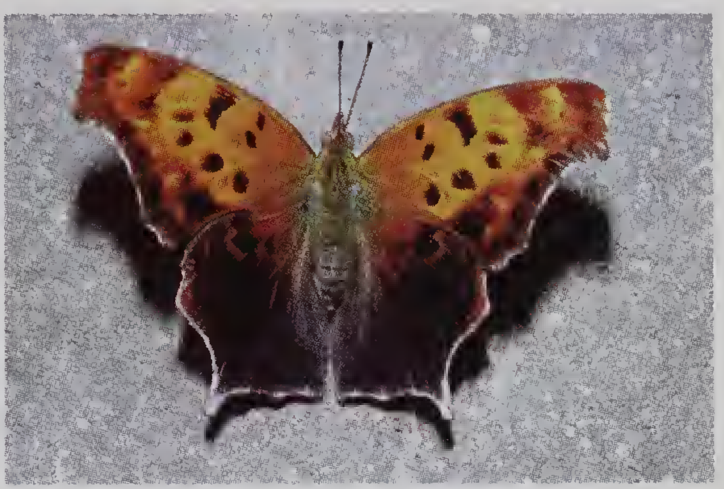
Habitat: The Question Mark is a forest insect that also occurs along roadsides, parks, and other sites containing its larval hosts—nettles (Urticaceae), hops (*Humulus* spp.), elm (*Ulmus* spp.), hackberry (*Celtis* spp.), basswood (*Tilia* spp.), and false nettle (*Boehmeria* spp.).

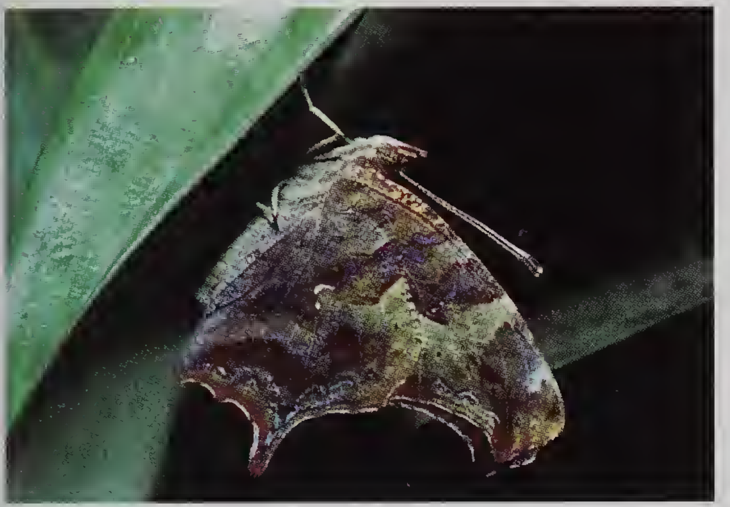
Natural History: Bivoltine. The dark first generation is on the wing in June and July. In August and September through October the second generation appears, most as the fall form. There may be a mix of forms in either generation. Eggs are laid in groups on the plants listed above. Larvae of the first generation pupate and develop without diapause to form the second generation. The latter overwinter as adults in shelters such as loose bark, hollow trees and logs, and other sites that can be entered. On warm days in winter, some become active, then return to wintering sites. There is some evidence that some individuals fly south to overwinter. Adults rarely feed at flowers; instead they take nourishment from sap flows, ripe fruit, carrion, and animal feces.

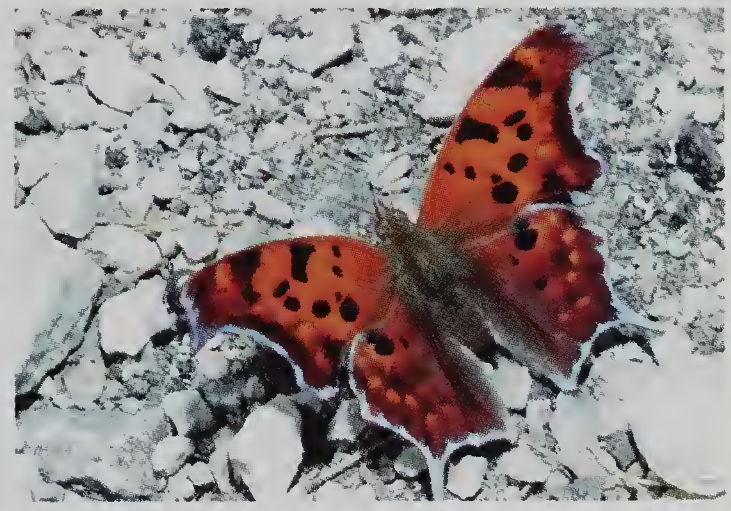
Status: Common throughout the state. A frequent resident of urban areas.

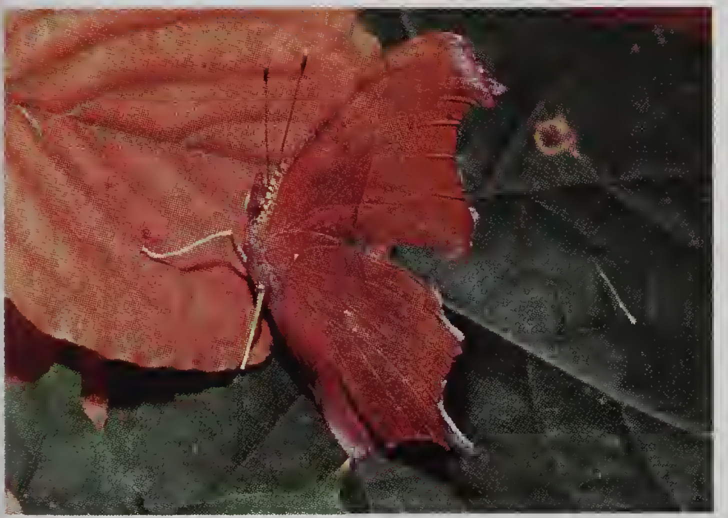
Remarks: Called the Semicolon by some authorities and the Violet Tip by others.

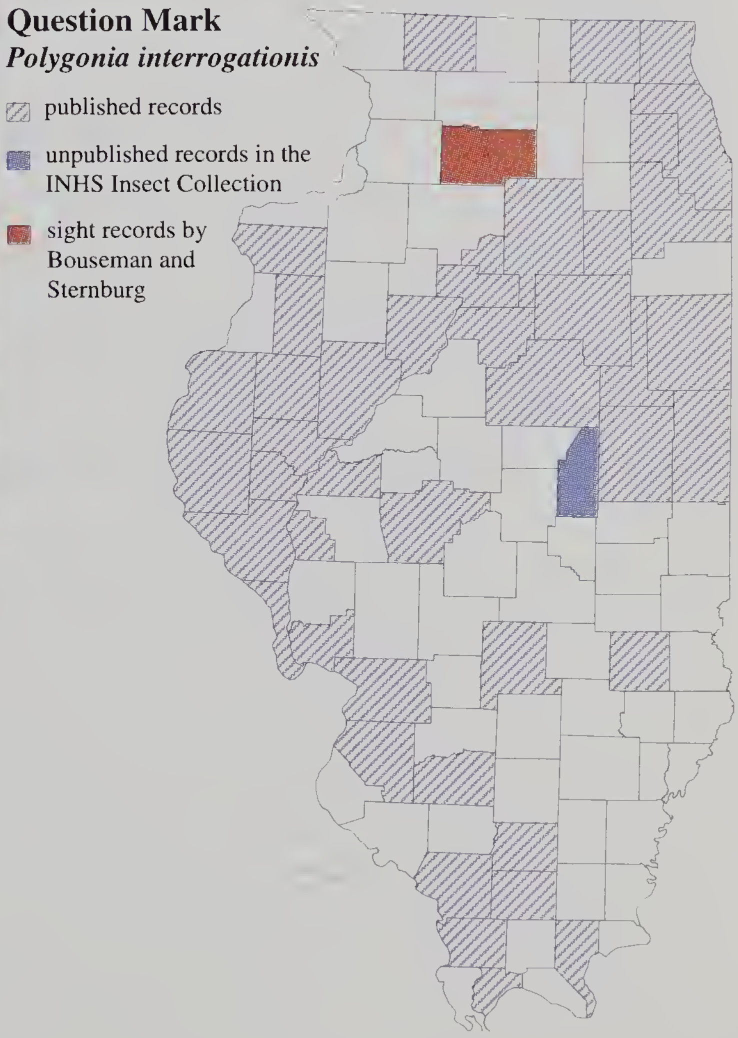

Female, Question Mark, summer form, Champaign County, IL.


Male, Question Mark, summer form, Champaign County, IL.


Male, Question Mark, summer form, Champaign County, IL.


Male, Question Mark, fall form, Champaign County, IL.


Female, Question Mark, fall form, Champaign County, IL.


Question Mark
Polygonia interrogationis
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Comma

Nymphalidae, Nymphalinae

Polygonia comma (Harris)

Description: Wingspan 1.75–2.8 in. Sexes have similar uppersides with variable undersides. Seasonally dimorphic. Adults of the first generation (June and July) have the uppersides of the hindwings mostly black. Those of the second generation have the hindwings orange with black spots. All have the upperside of the forewings above orange with black spots. The undersides of the summer generation are brown with scattered darker markings, most pronounced in the males. Second-generation adults are somewhat redder on the undersides. All have the short hindwing tail with a violet tip and a single comma-shaped silver spot. The margins of the wings are irregular in outline, thus inspiring the general name “angle-wing.” This is more evident in the fall form.

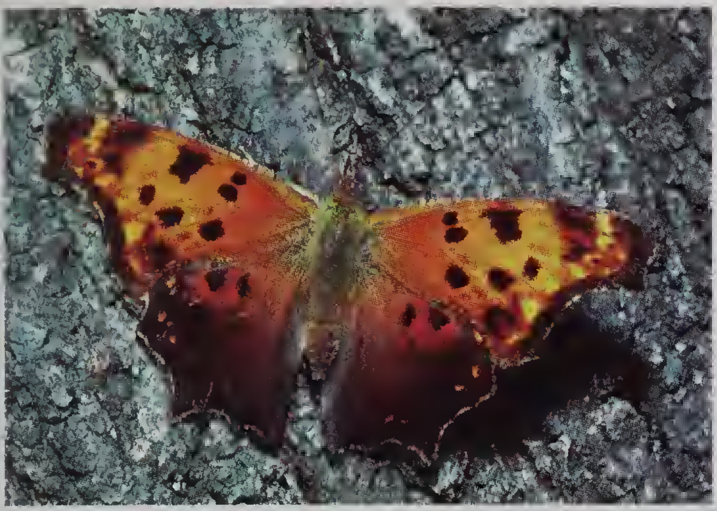
Similar Species: The Gray Comma has a gray underside. The Question Mark is larger and has a double silver mark resembling a question mark or a semicolon.

Habitat: Forests, in clearings, along the edges of paths, parks, roadsides, gardens.

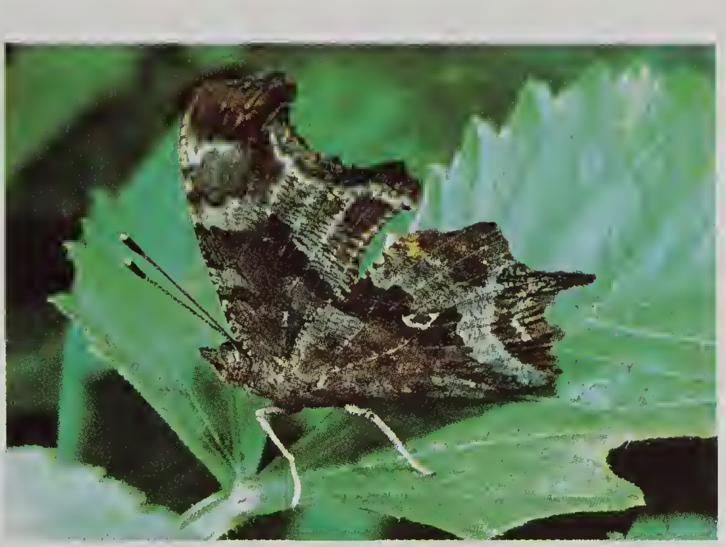
Natural History: Bivoltine. The first generation flies in June and July. Its progeny develop directly to the second generation, flying from August to fall, then going into diapause for the winter. Adults overwinter in hollow trees, under loose bark, and in other sheltered spots. They may become temporarily active on warm winter days. Larvae feed on nettles (Urticaceae), elm (*Ulmus* spp.), hops (*Humulus* spp.), and related plants. Adults rarely take nectar. They are attracted to overripe fruit, sap flows, animal feces, and carrion. Adults also frequent damp sites, especially where decaying organic matter is or was present.

Status: Common to uncommon. Statewide.

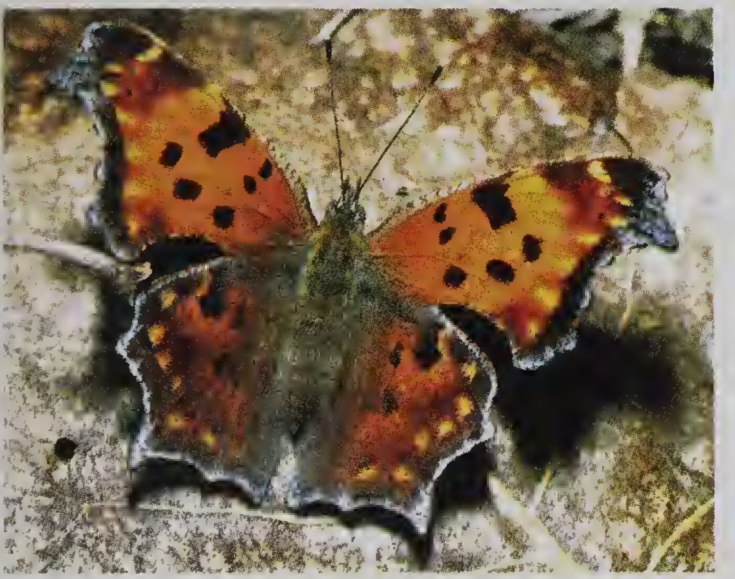
Remarks: Also known as the Hop Merchant.



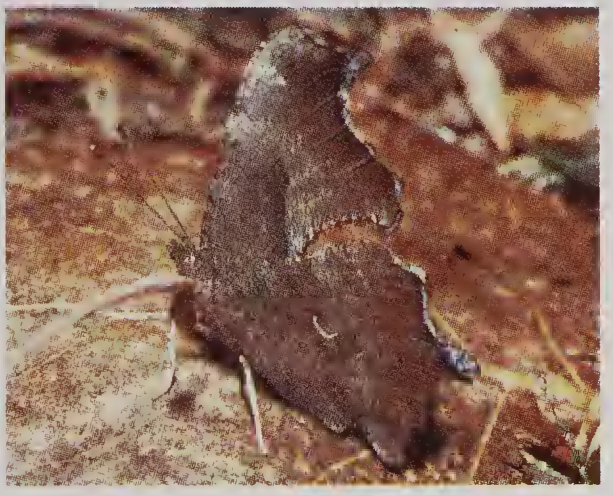
Comma, summer form, Champaign County, IL.



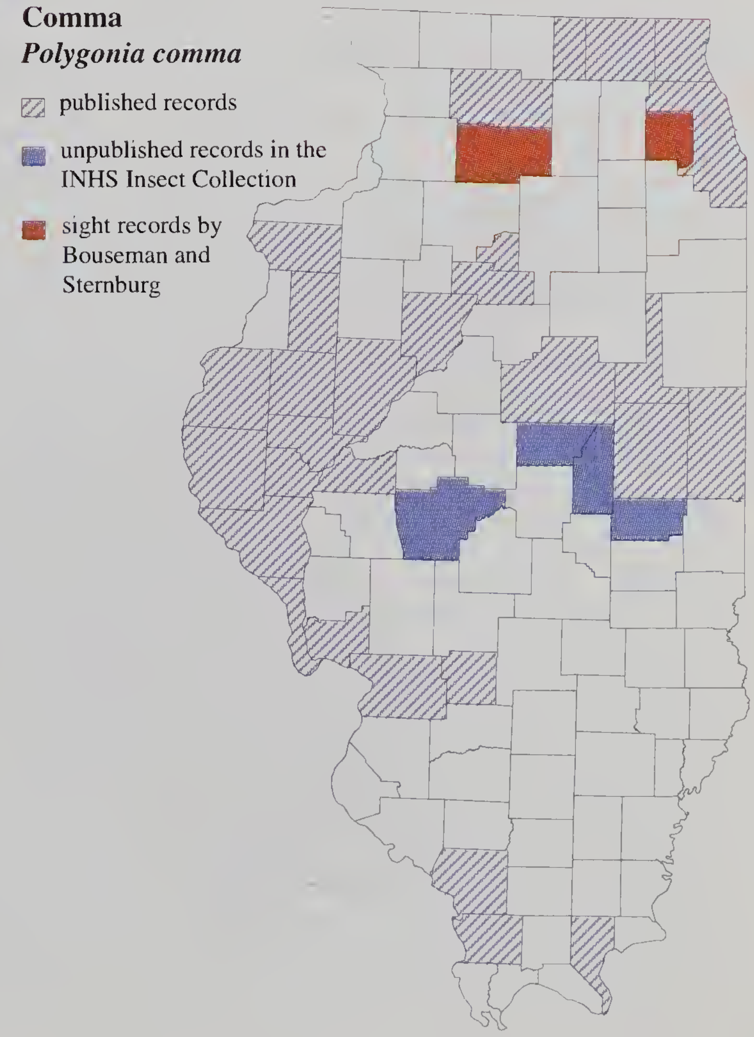
Male, Comma, summer form, Champaign County, IL.



Male, Comma, fall form, Champaign County, IL.



Male, Comma, fall form, Champaign County, IL.



Comma
Polygonia comma

▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Green Comma — Nymphalidae, Nymphalinae

Polygonia faunus (W.H. Edwards)

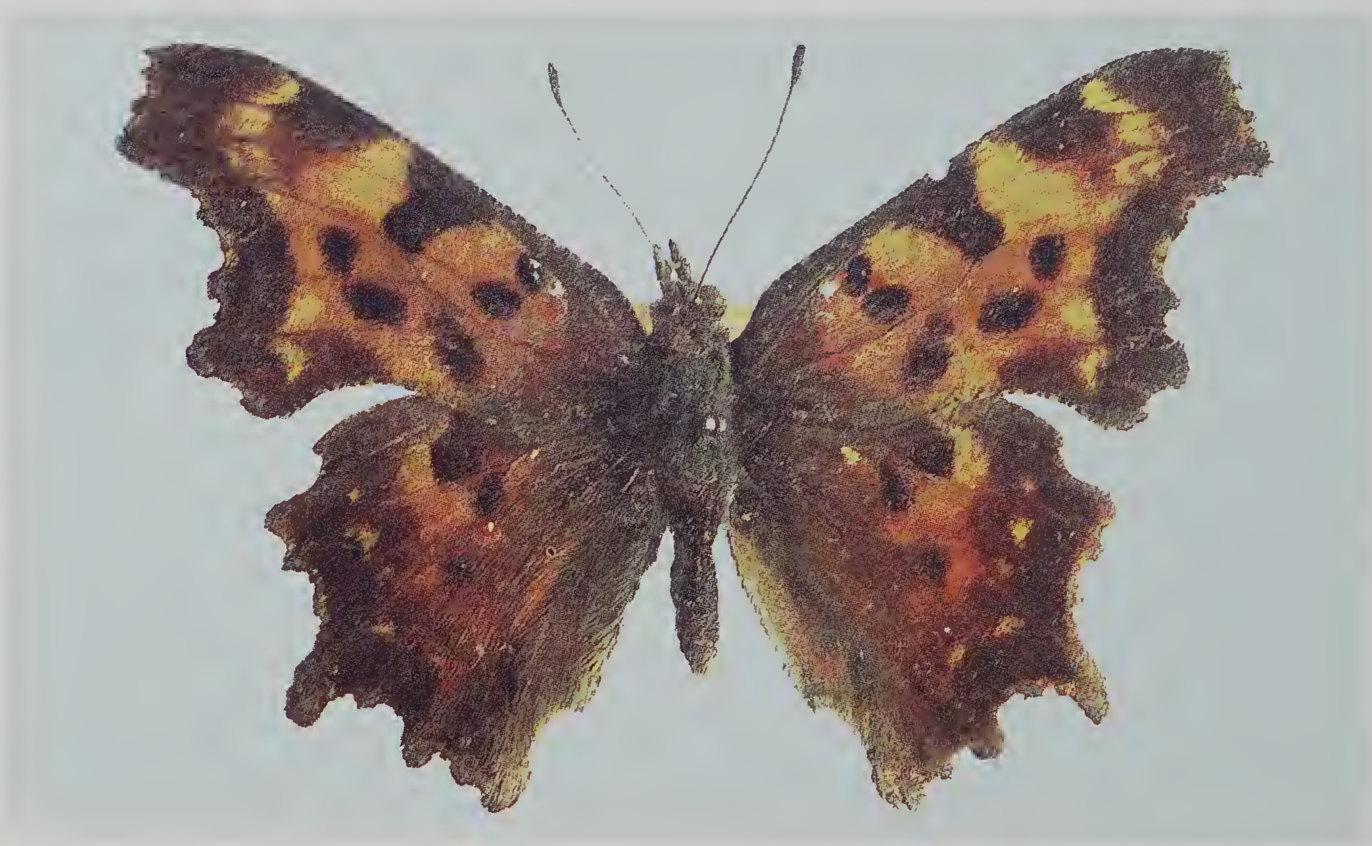
Description: Wingspan 2.0–2.5 in. Sexes similar. Orange upperside with brown borders and black spots closely resembling the Comma. The underside resembles brown bark or dead leaves with patches of green scales. A single silver mark on the hindwing resembles a comma. The wings are more jagged than those of our other *Polygonia* species.

Similar Species: Any of the *Polygonia* spp. *P. faunus* is the only one with green scaling.

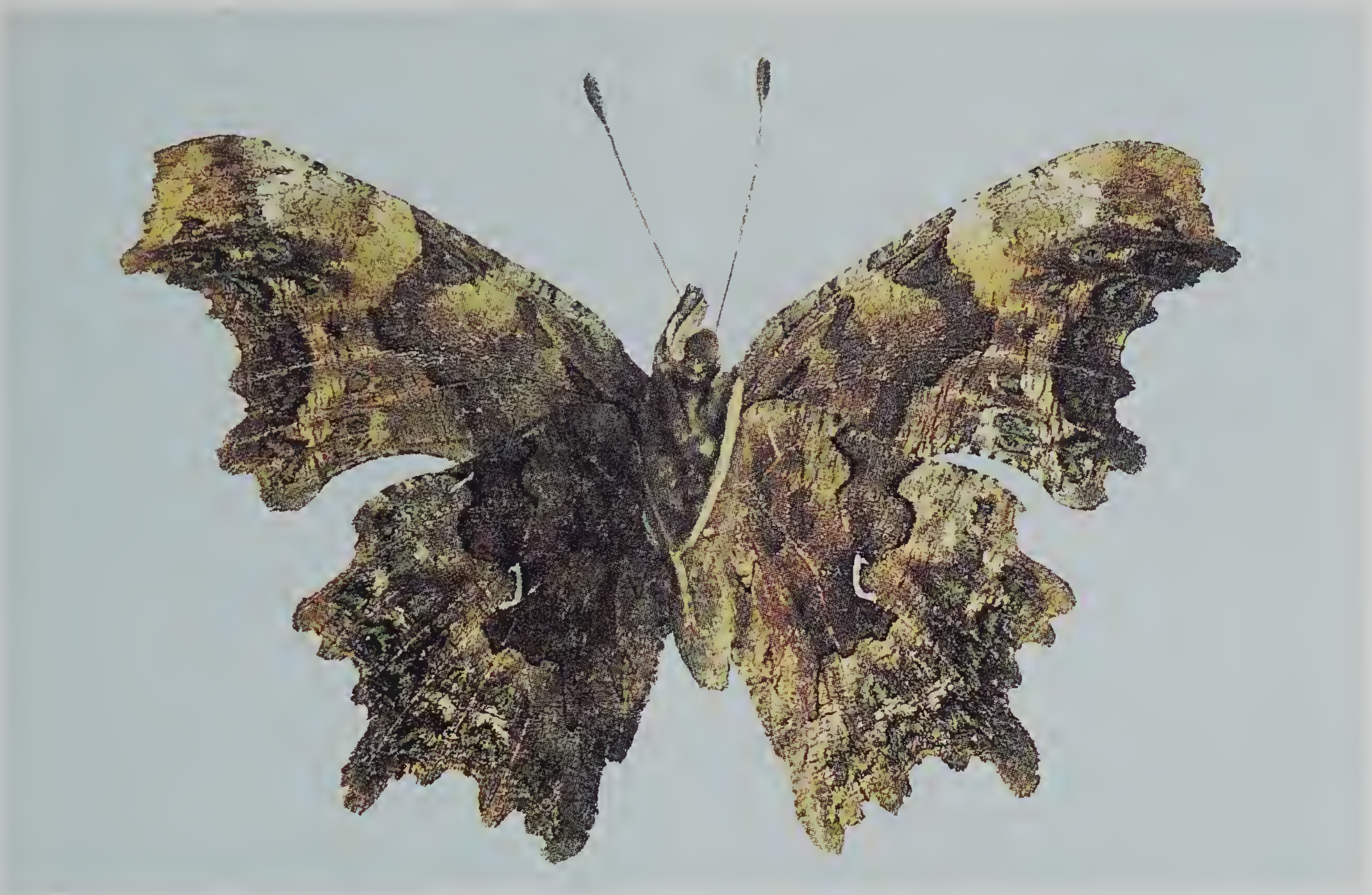
Habitat: Northern Canadian-zone woodlands, south to transitional regions. Forests, roadsides, along trails, clearings.

Natural History: Univoltine. Sexes similar. Adults of the single generation appear first in mid-summer, fly through the summer and fall, and then overwinter. In the spring they again become active, and the females lay their eggs on the larval hosts, including alder (*Alnus* spp.), gooseberry (*Ribes* spp.), blueberry (*Vaccinium* spp.), birch (*Betula* spp.), and pussytoes (*Antennaria* spp.). Adults feed on ripe fruit, sap flows, carrion, and feces. They will sometimes nectar at flowers.

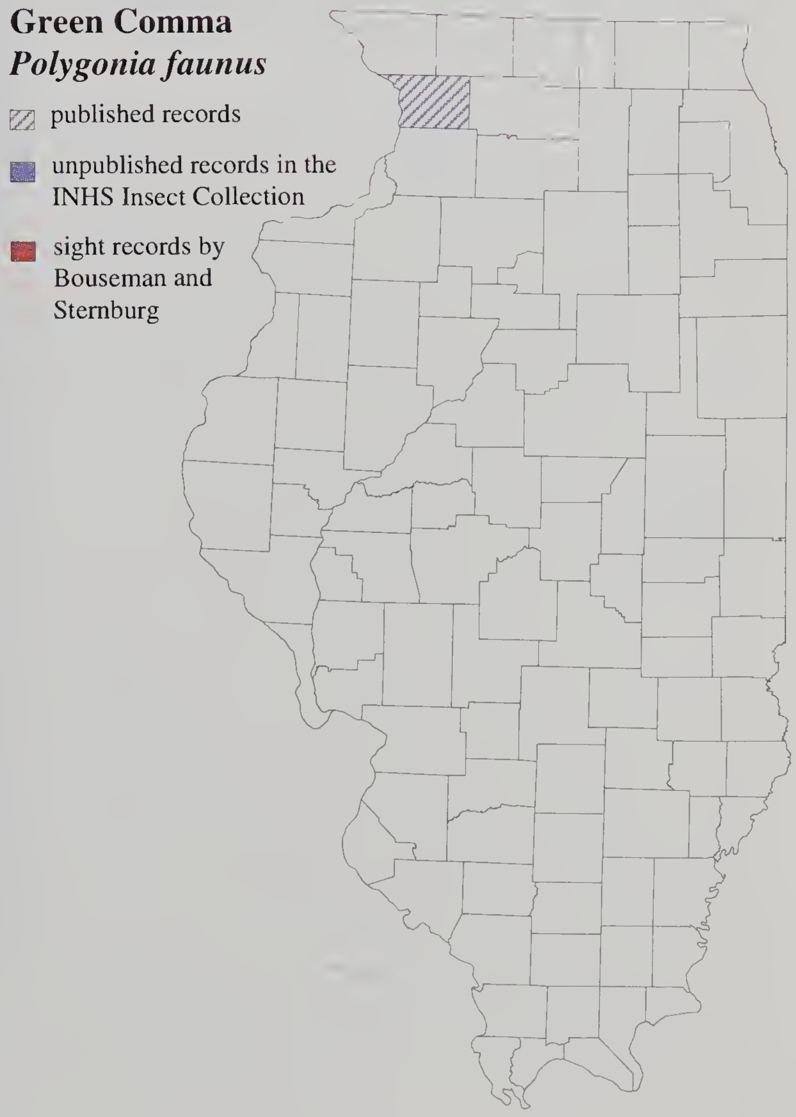
Status: Recorded rarely from the extreme northwest corner of Illinois. Not known elsewhere in the state.



Male, Green Comma, Coos County, NH.



Male, Green Comma, Quebec, Canada.



Green Comma
Polygonia faunus

▨ published records

🟦 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg

Gray Comma

Nymphalidae, Nymphalinae

Polygonia progne (Cramer)

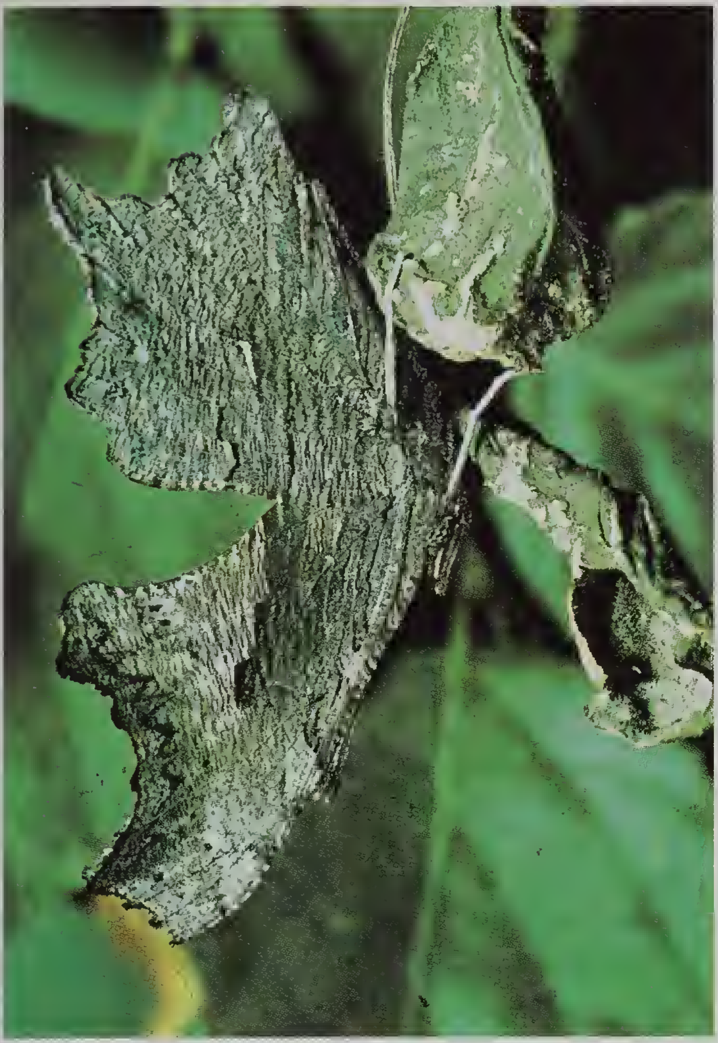
Description: Wingspan 2.1–2.6 in. Sexes similar. Seasonally dimorphic. First-generation adults have the uppersides of the hindwings mostly black. Second-generation adults have the uppersides of the hindwings orange with black spots. All have the forewings orange with black spots. On the underside, both generations have gray wings with white striations. The second-generation adults have more jagged wings than the first. All have a single silver hindwing mark.

Similar Species: Can be confused with the upperside of the Comma, but the underside of the Comma wings is brown, not gray.

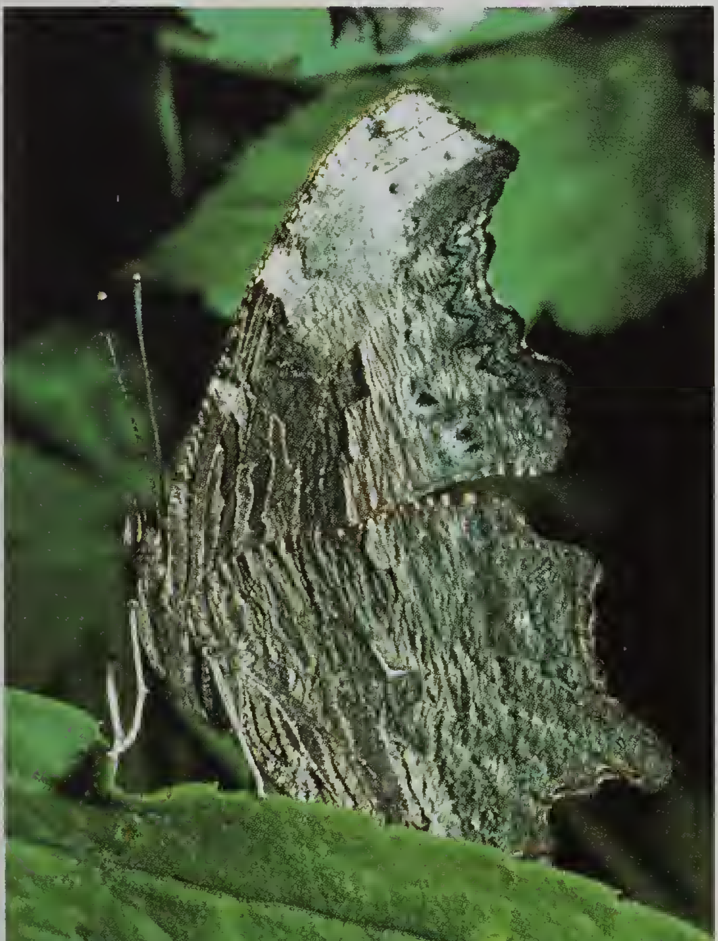
Habitat: Forests, woods edges, wooded roadsides, trails.

Natural History: Bivoltine. The first generation flies in June and July, the second in August and early fall. Adults overwinter in tree holes, under bark, in hollow logs and in similar sites. The usual larval host is gooseberry (*Ribes* spp.). As in other *Polygonia* species, adults rarely visit flowers, but regularly feed on fermenting ripe fruit, sap flows, carrion, and animal feces.

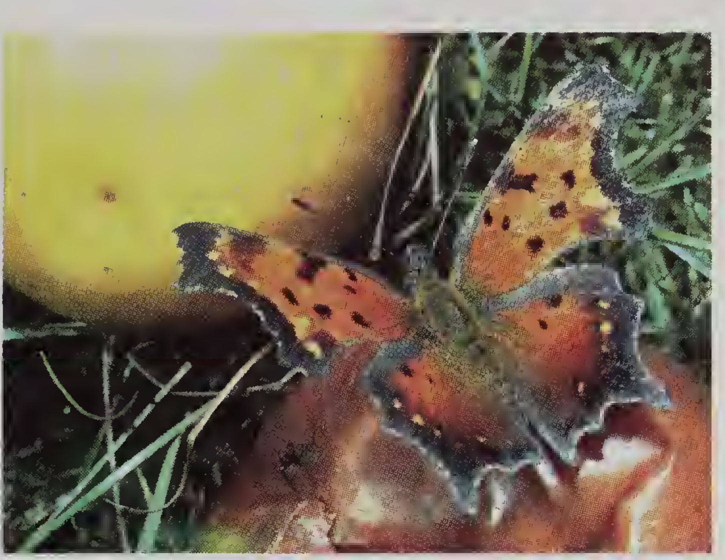
Status: Upper half of state, usually uncommon.



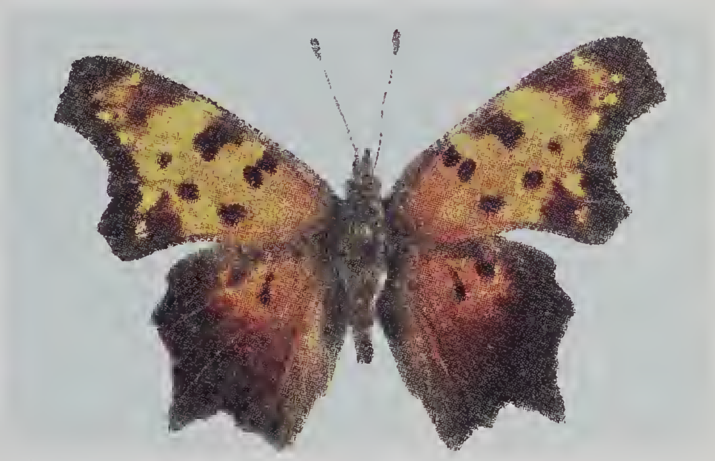
Male, Gray Comma, fall form, Piatt County, IL.



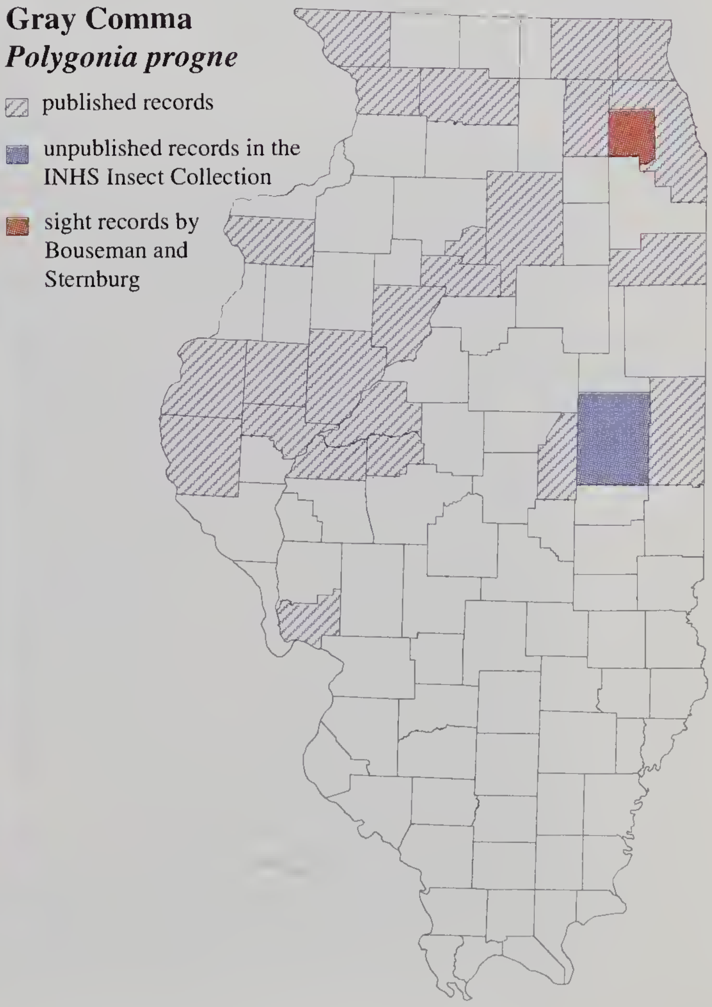
Female, Gray Comma, summer form, Piatt County, IL.



Male, Gray Comma, fall form, Champaign County, IL.



Male, Gray Comma, summer form, Piatt County, IL.



Gray Comma
Polygonia progne
▨ published records
▨ unpublished records in the INHS Insect Collection
▨ sight records by Bouseman and Sternburg

Silvery Checkerspot — Nymphalidae, Nymphalinae

Chlosyne nycteis (Doubleday and Hewitson)

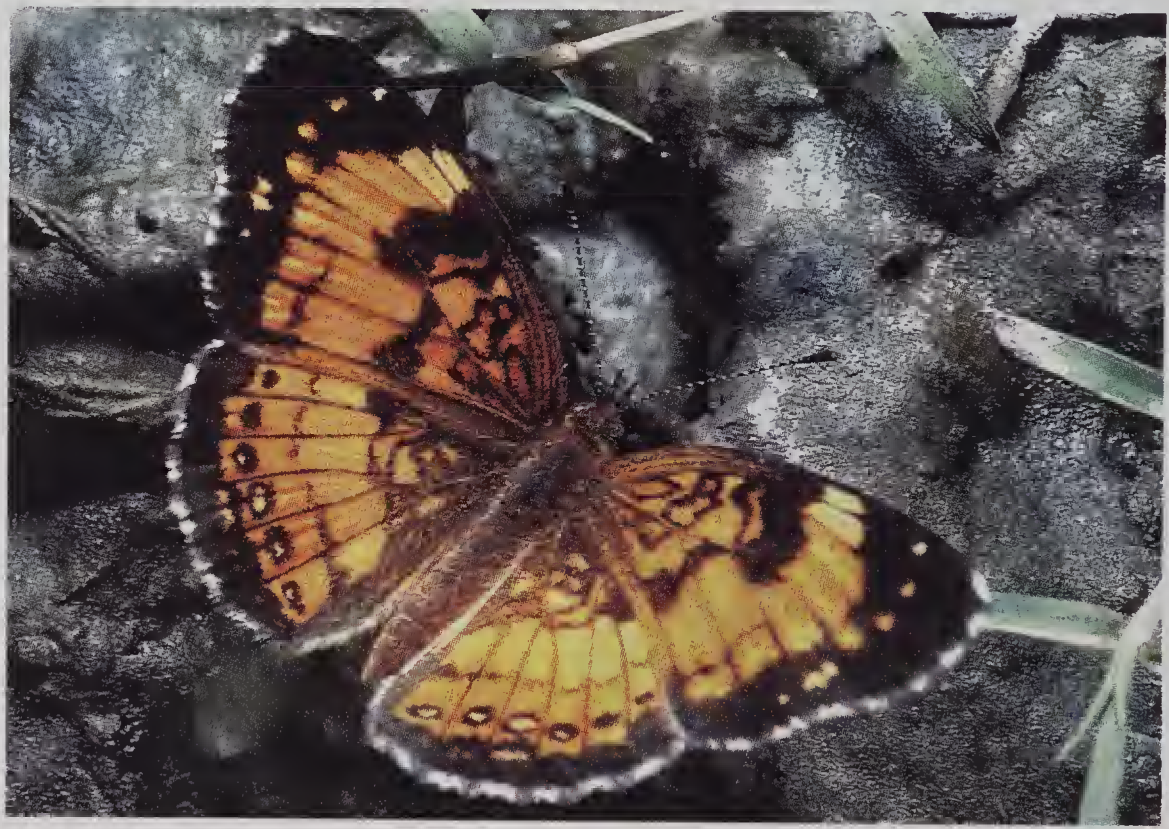
Description: Wingspan 1.3–1.75 in. Sexes similar. Upperside orange with black borders and wing base. Postmedian dark zigzag line across wings. Basal area irregularly reticulate. Apex of the forewing is black, hindwing with submarginal black dots. Underside of hindwing yellow with brown margin, median band of yellow-brown spots, and wing with a silvery appearance.

Similar Species: Gorgone Checkerspot has white marginal dots. Pearl Crescent has more dark lines. The undersides of the hindwings of Harris' Checkerspot have redddish spots. The crescents have a different pattern of markings.

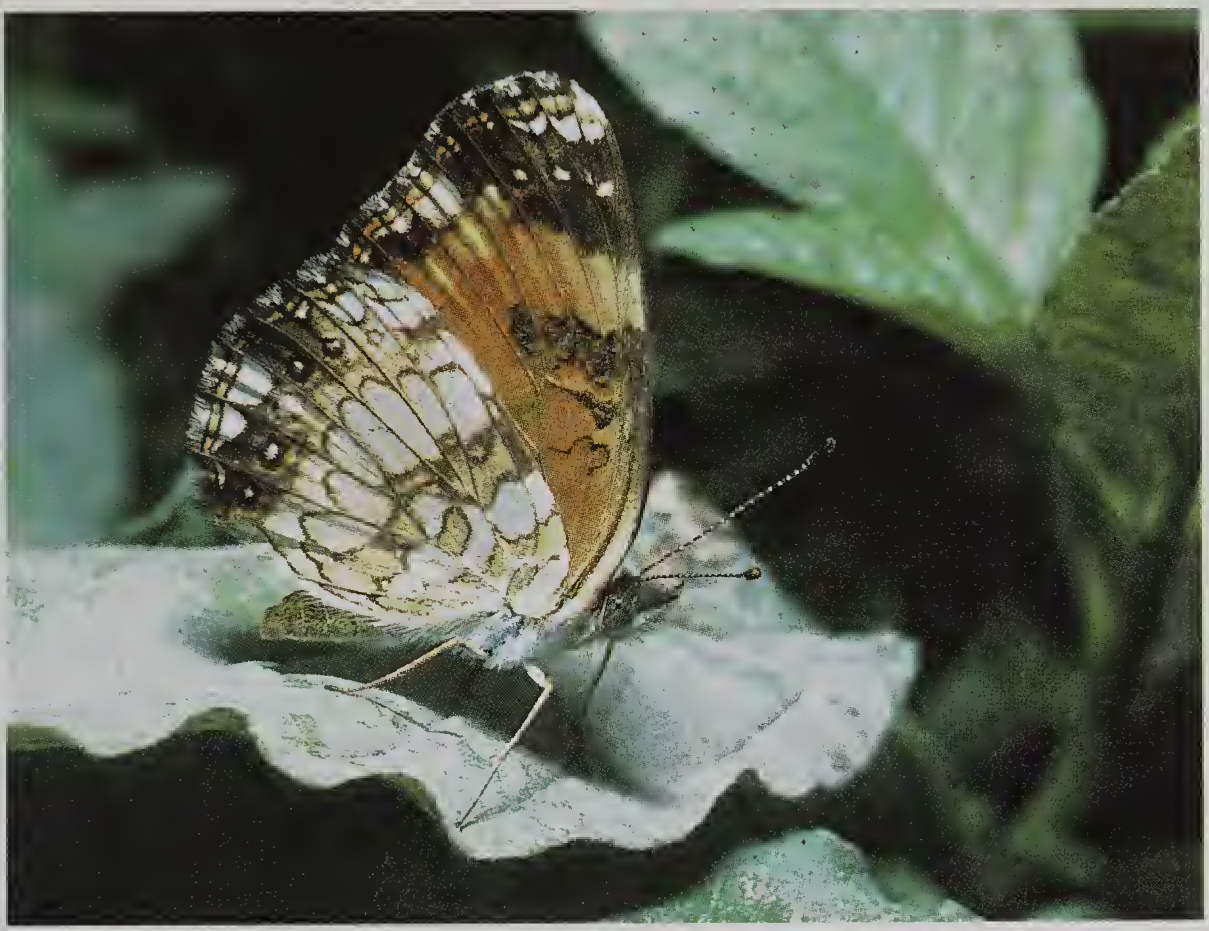
Habitat: Open deciduous forests, along streams, and adjacent moist grassy areas.

Natural History: Bivoltine. Eggs are laid in masses on sunflowers (*Helianthus* spp.), asters (*Aster* spp.), coneflowers (*Echinacea* spp.), wingstems (*Helenium* spp.), and other composites. Partially grown larvae overwinter. First-generation adults appear in June, second generation in July and August. Adults take nectar from a variety of flowers. They are most common near streams.

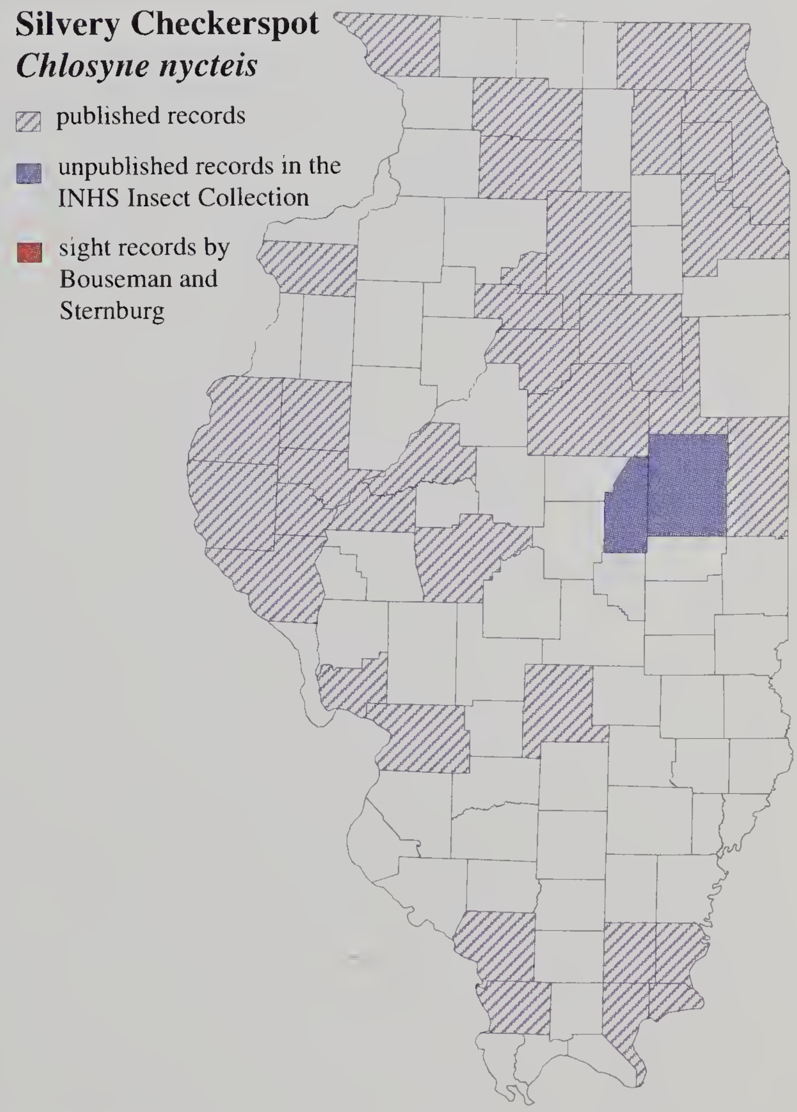
Status: Local and common statewide.



Male, Silvery Checkerspot, Champaign County, IL.



Male, Silvery Checkerspot, Champaign County, IL.


Silvery Checkerspot
Chlosyne nycteis
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Gorgone Checkerspot Nymphalidae, Nymphalinae

Chlosyne gorgone carlota (Reakirt)

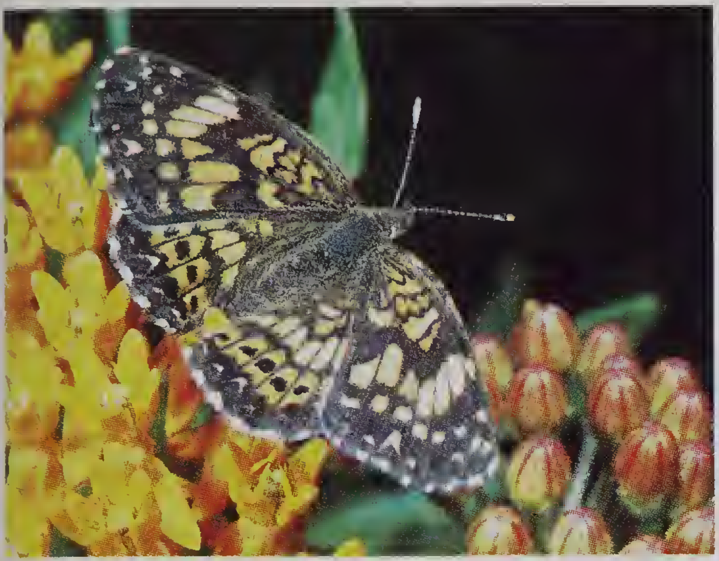
Description: Wingspan 1.1–1.7 in. Sexes similar. Upperside much like the Silvery Checkerspot, but with very conspicuous white marginal dashes or spots. On the underside, the submarginal zigzag pattern of alternating white and brown is diagnostic.

Similar Species: Underside is distinct. Upperside can be confused with the Pearl Crescent and the other checkerspots.

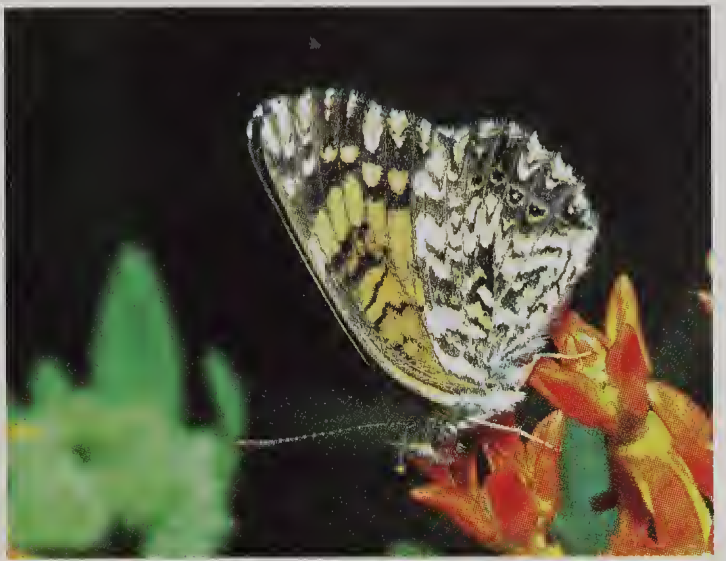
Habitat: Open areas, roadsides, meadows, pastures, forest glades, prairies, and wastelands.

Natural History: Multivoltine. Adults from May through September. Females lay their eggs in clusters. Larvae feed on the foliage of sunflowers (*Helianthus* spp.) and other composites. They feed as a group while small. Males actively patrol in search of females. The adults take nectar from a variety of flowers, depending on the season. When in bloom, orange milkweed is a favorite.

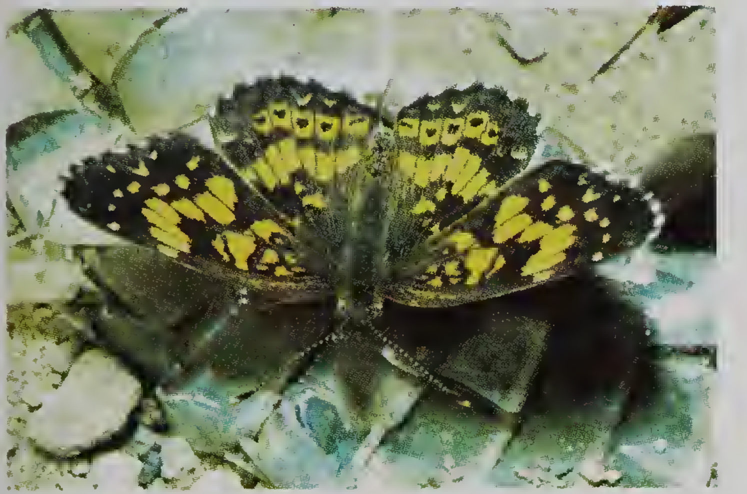
Status: Populations vary in size from year to year, sometimes apparently scarce, then common to abundant. In the early 1960s, in the sandy areas of Sand Ridge State Forest, a few were reported. Within a few years, the species was the most abundant butterfly there. Populations spread to east-central Illinois and for many years remained common, often abundant, and present everywhere. The numbers have since decreased. The species should be looked for in open areas, along roadsides, and where there are prairie remnants, particularly in the western counties.



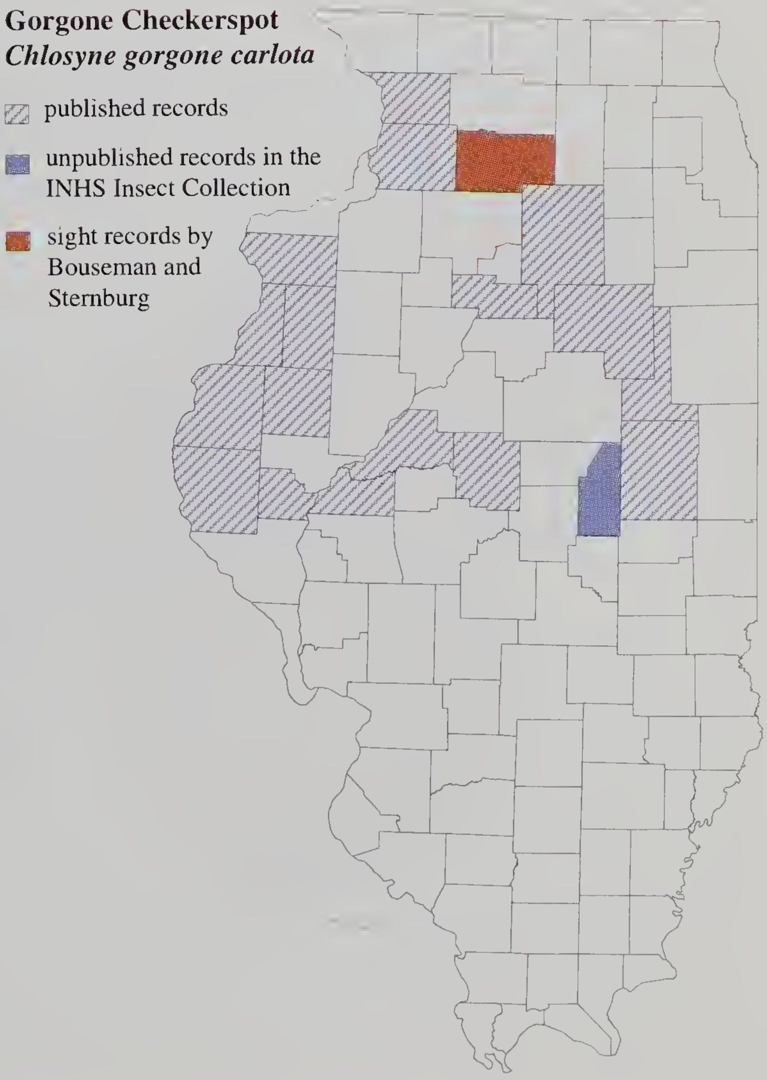
Female, Gorgone Checkerspot, Champaign County, IL.



Male, Gorgone Checkerspot, Champaign County, IL.



Male, Gorgone Checkerspot, Mason County, IL.



Gorgone Checkerspot
Chlosyne gorgone carlota

▨ published records

🟦 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg

Harris' Checkerspot — Nymphalidae, Nymphalinae

Chlosyne harrisii (Scudder)

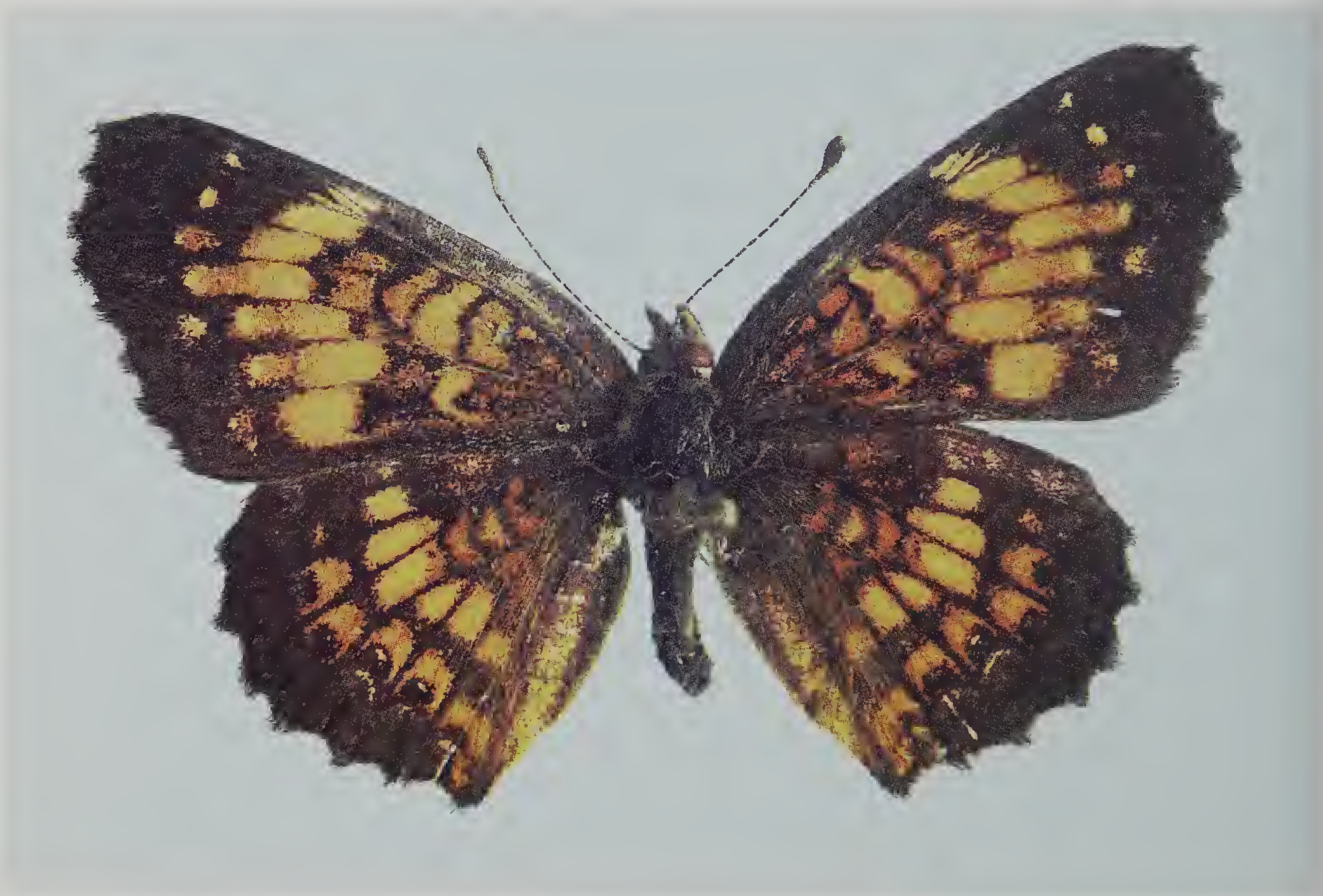
Description: Wingspan 1.4–1.75 in. Sexes similar. Upperside much like a heavily marked Silvery Checkerspot. Underside has the same pattern of bars, lines, and spots, but has a white, orange, and black-checkered appearance.

Similar Species: Silvery Checkerspot.

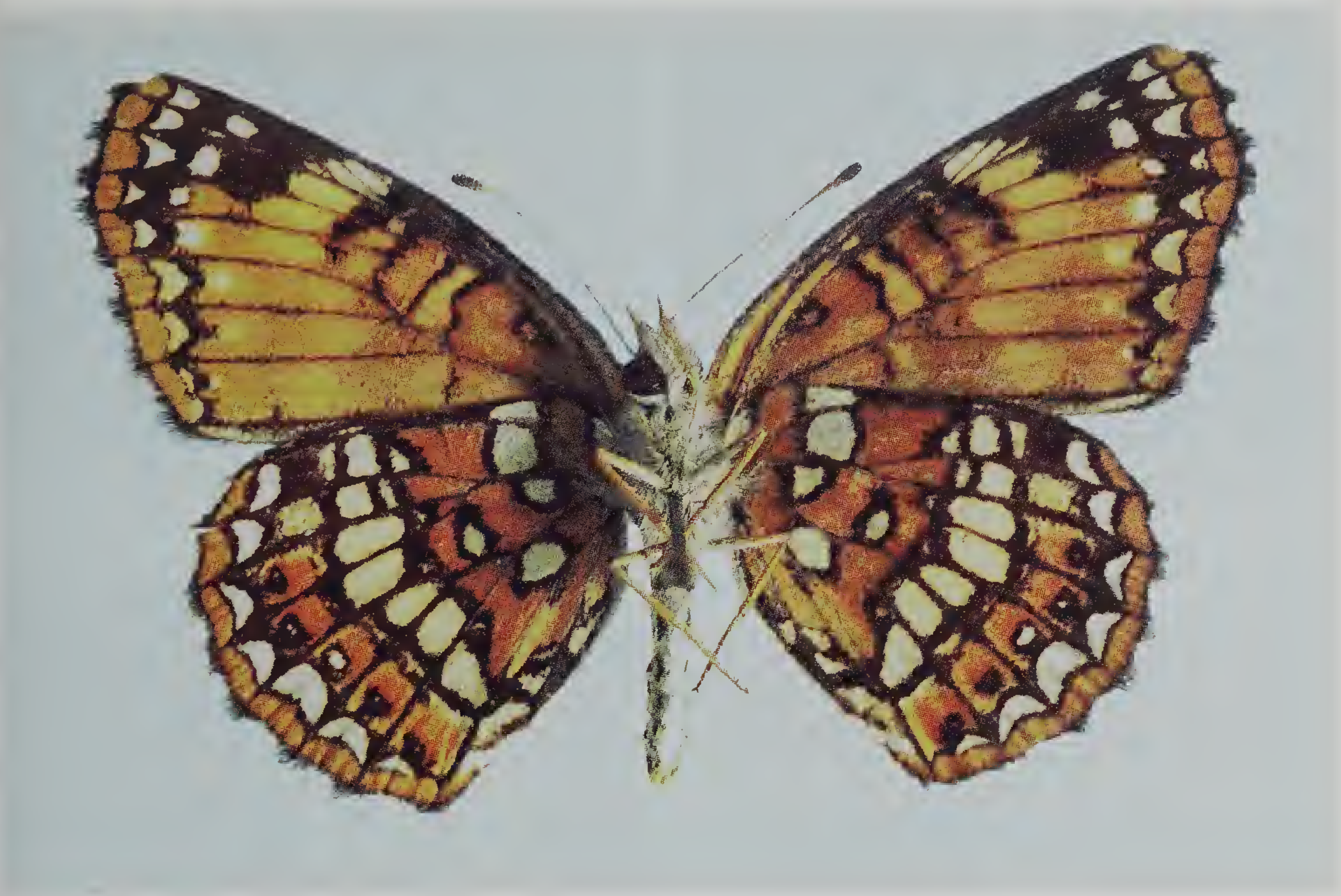
Habitat: Pastures, meadows, edges of wetlands. A good indicator is the presence of blue flag (*Iris versicolor*).

Natural History: Univoltine with adults in June and July. Eggs are laid in masses on the larval host—flat-topped white aster (*Aster umbellatus*). The half-grown larvae overwinter.

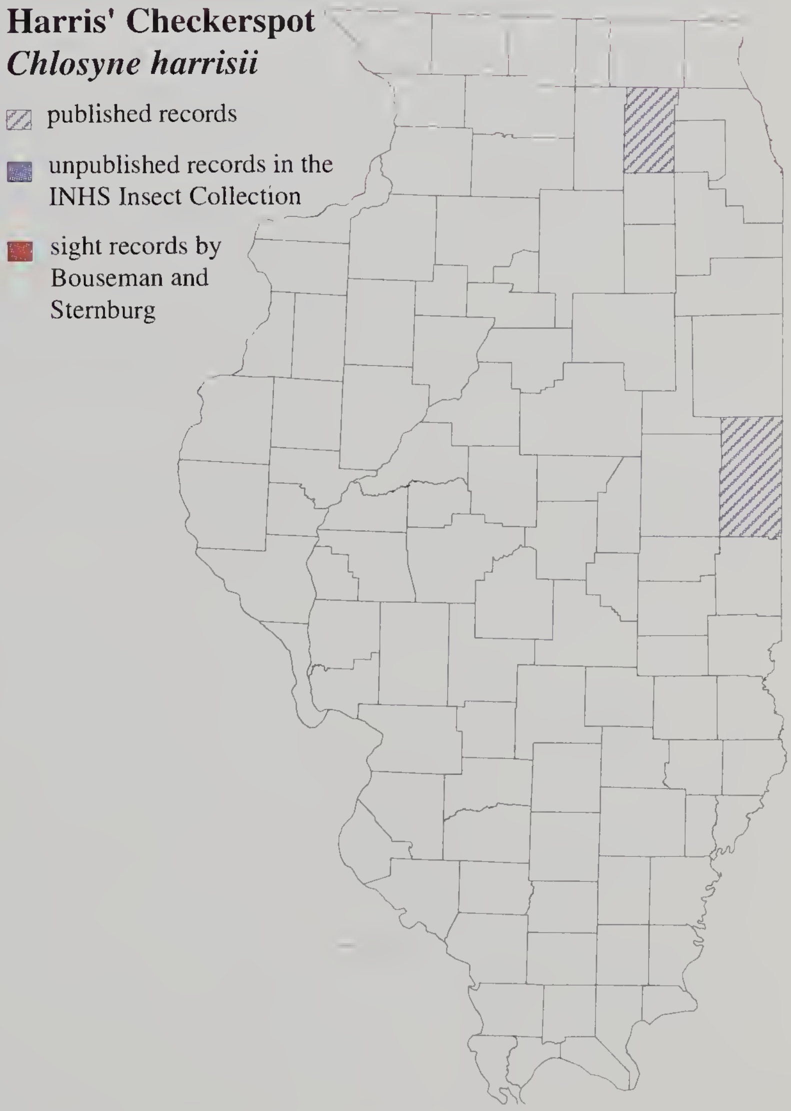
Status: Rare. A few records from Kane and Vermilion counties.



Male, Harris' Checkerspot, upperside, Nova Scotia, Canada.



Male, Harris' Checkerspot, underside, Nova Scotia, Canada.


Harris' Checkerspot
Chlosyne harrisii
▨ published records
🟪 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Pearl Crescent — Nymphalidae, Nymphalinae

Phyciodes tharos (Drury)

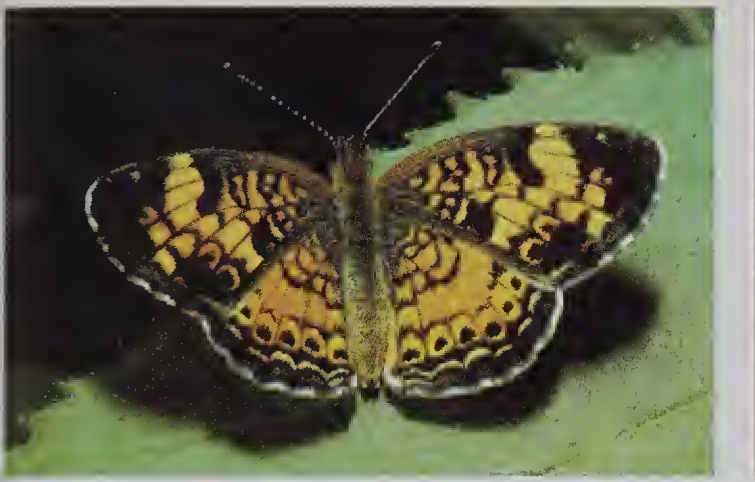
Description: Wingspan 1.2–1.5 in. Sexual and seasonal dimorphism. Cold weather (spring and fall) individuals of both sexes have the underside of the hindwings mottled with fine dark lines. Summer broods have less mottling, the males yellowish, and the females mottled with brown, both with a darker patch with a crescent on the outer margin of the hindwing. On the upperside, the males of all seasonal forms are more tawny than the females. Markings of the females are more extensive.

Similar Species: Texan Crescent (rare stray to Illinois based on a sight record) is much darker, nearly black above. An old record of a Tawny Crescent is questionable. The latter species is more yellow on the underside, and more heavily marked above.

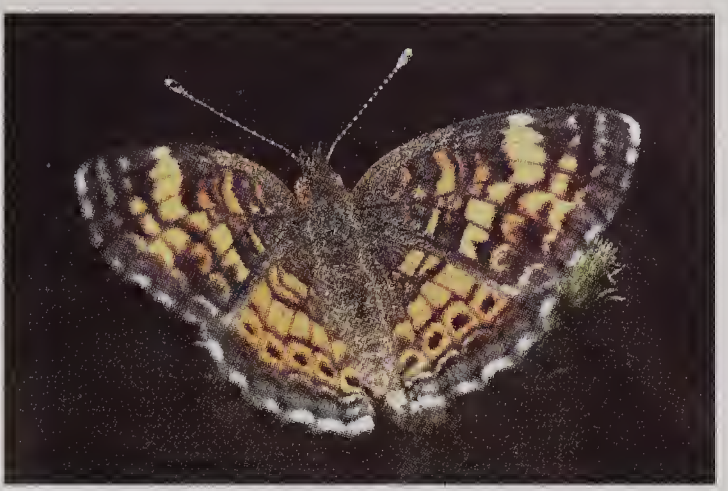
Habitat: Almost anywhere; open areas, roadsides, gardens, parks, forests if not too dense.

Natural History: Adult flight extends from early spring through three or more generations into fall. Flight is usually low, seemingly slow but readily becoming fast and erratic with disturbance. The species overwinters in the larval stage. Larval hosts are native true asters (*Aster* spp.), including New England aster (*A. novae-angliae*) and others. Adult males patrol in search of females. At rest, both sexes bask with wings spread. Females lay eggs in groups on the leaves of the larval host, usually on the undersides. Adults nectar on a great variety of flowers, depending on seasonal presence. Newly emerged males often gather in numbers at moist sites, forming puddle clubs. Pearl Crescents are feisty little butterflies, darting out at other passing butterflies.

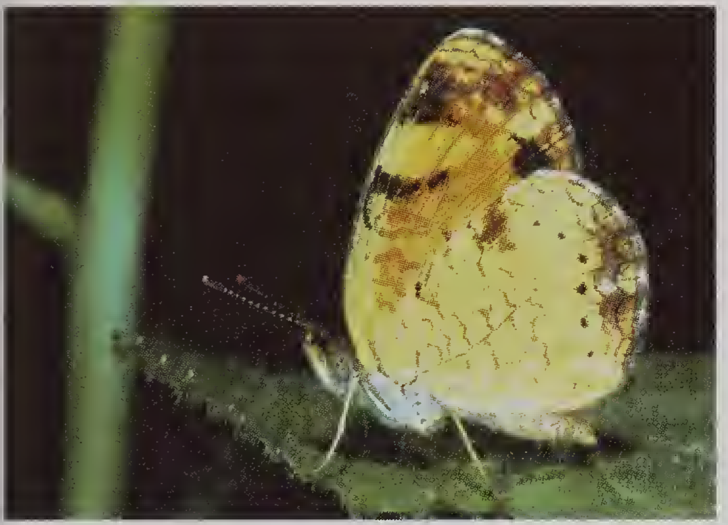
Status: Abundant to common. Statewide and almost anywhere. Probably our most common butterfly.



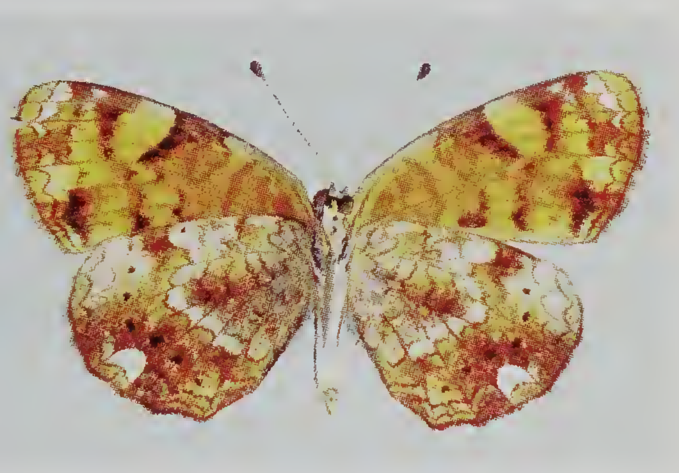
Male, Pearl Crescent, summer form, Piatt County, IL.



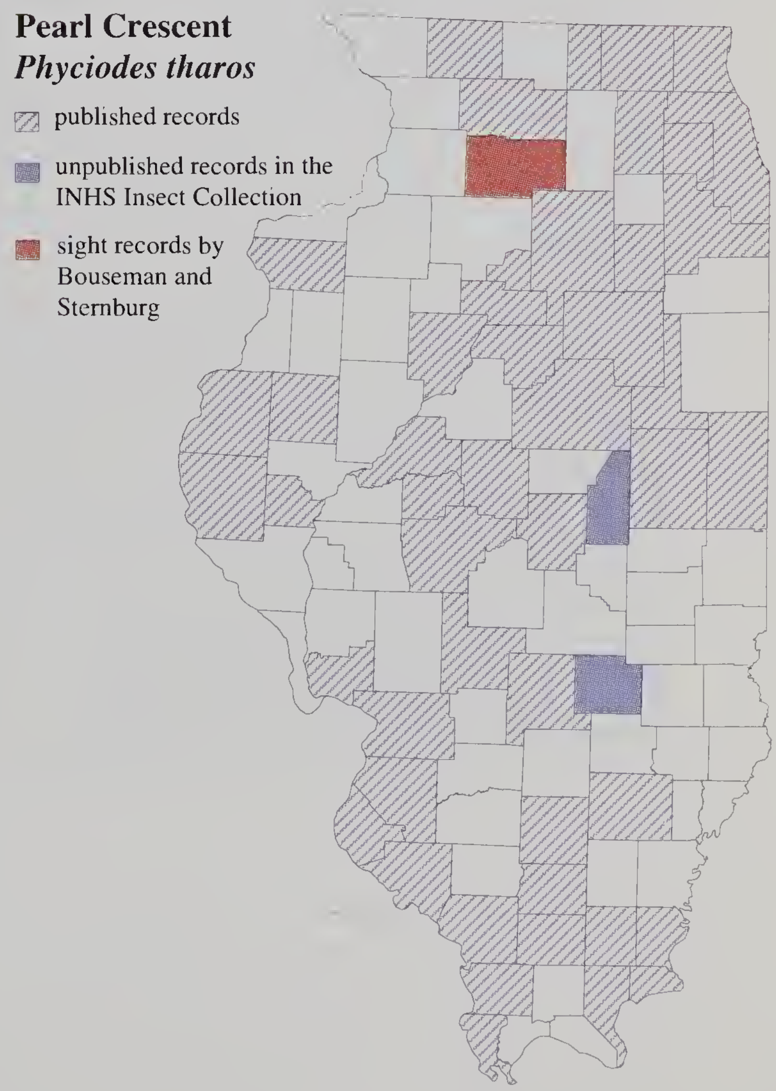
Female, Pearl Crescent, summer form, Wayne County, Mo.



Male, Pearl Crescent, summer form, Piatt County, IL.



Female, Pearl Crescent, underside, spring form, Champaign County, IL.



Pearl Crescent
Phyciodes tharos

▨ published records

🟦 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg

Tawny Crescent

Nymphalidae, Nymphalinae

Phyciodes batesii (Reakirt)

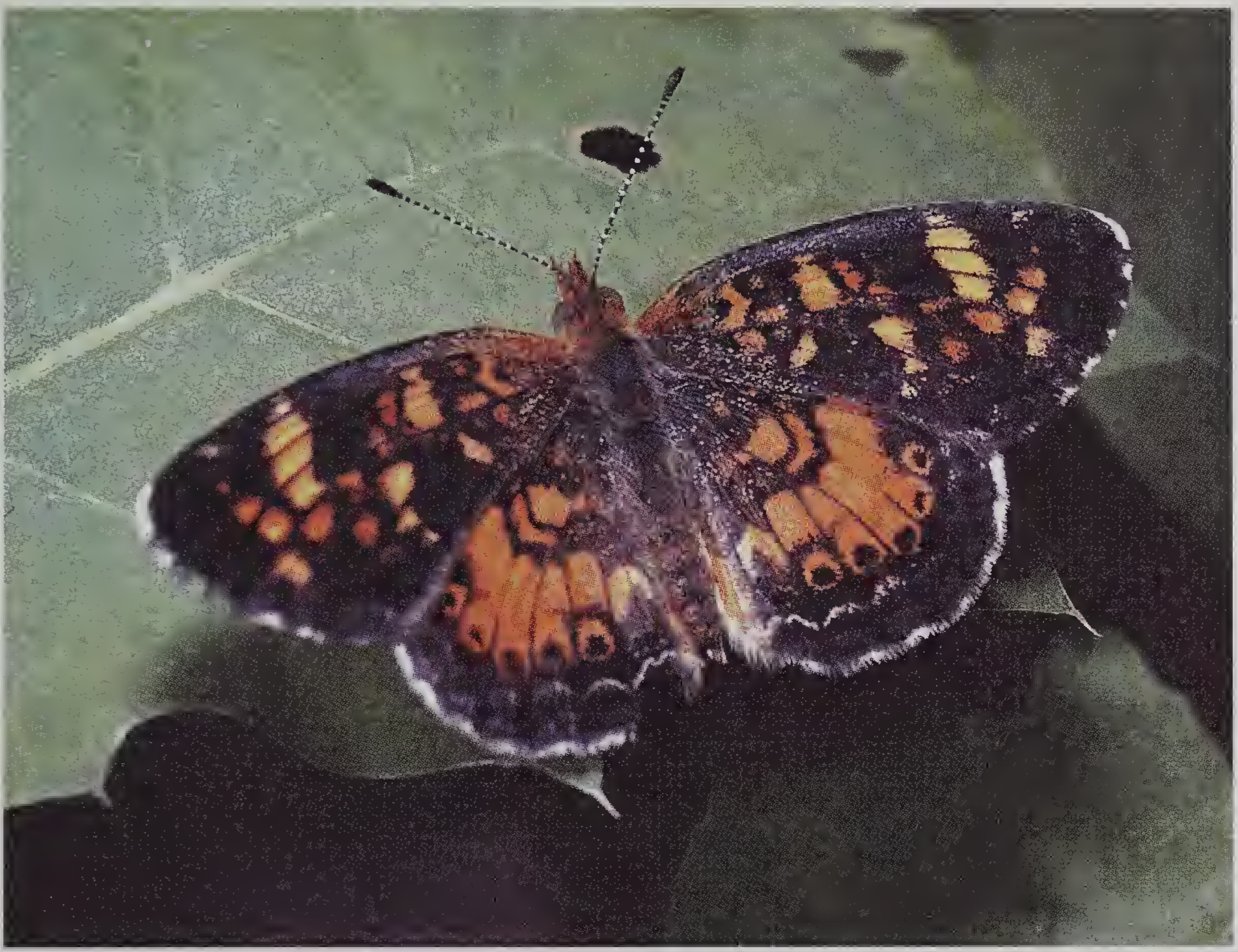
Description: Wingspan 1.25–1.75 in. Sexes similar, but females have underside of hindwing mottled, whereas it is mostly cream yellow in males. The upperside markings are typical of crescents. There are pale orange median-row spots, distinct from the general orange ground color.

Similar Species: Can be confused with the Pearl Crescent. The latter has upperside more tawny, and the underside of the hindwings is much darker.

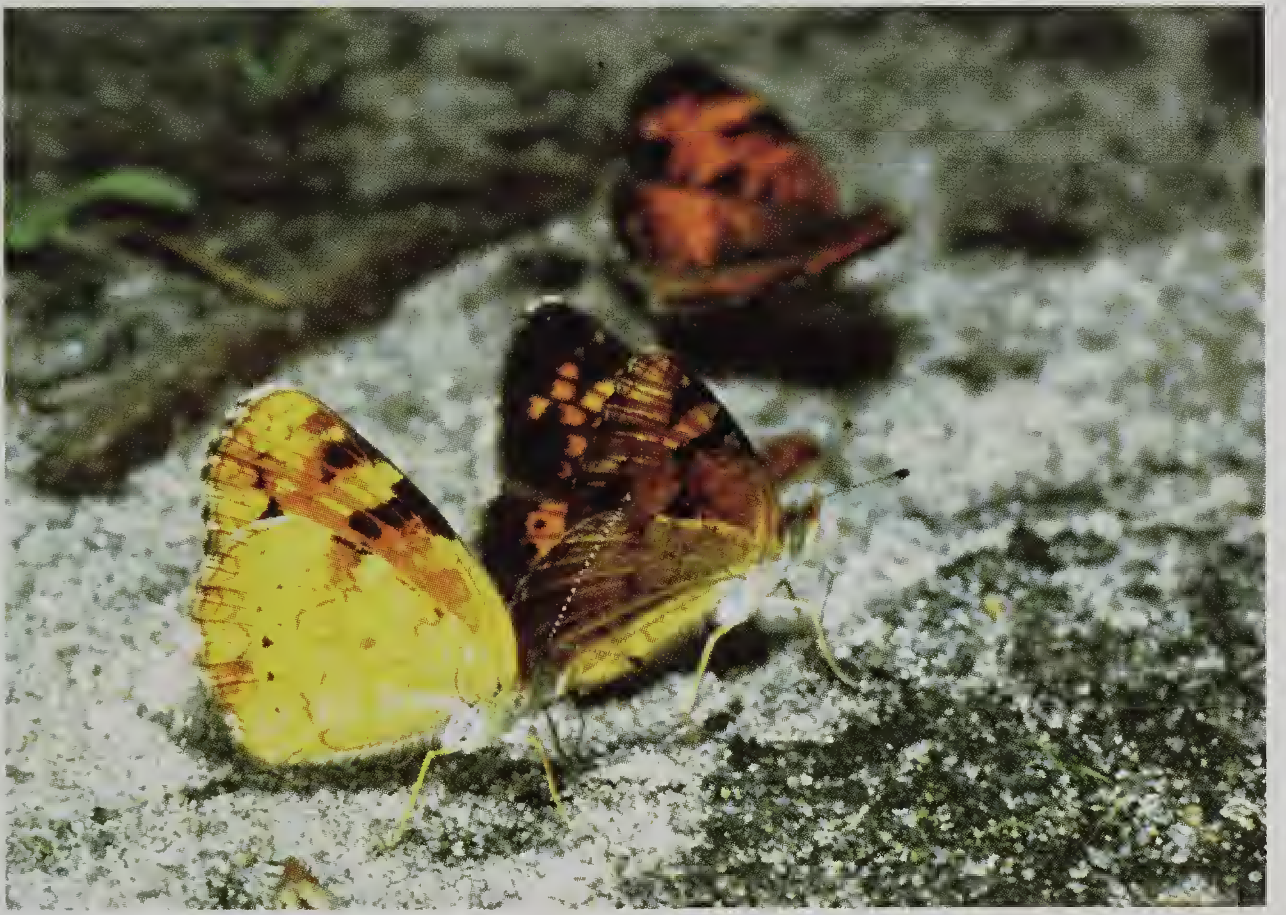
Habitat: Moist meadows, pastures, and similar areas, but also drier sites such as pastures and open fields.

Natural History: Univoltine, with adults in May and June. Larval host is wavy-leaved aster (*Aster undulatus*). Eggs are laid in groups on undersides of leaves. Partially grown larvae overwinter and complete feeding in the spring.

Status: Not known to breed in Illinois, and no positive records of its presence are known. However, it occurs in Wisconsin not too far from the Illinois border. Its close casual resemblance to the ubiquitous and ever-present Pearl Crescent makes recognition difficult, and it may be overlooked.



Male, Tawny Crescent, Emmet County, MI.



Male, Tawny Crescent (left), [two butterflies on right are Northern Pearl Crescents], Emmet County, MI.

Baltimore — Nymphalidae, Nymphalinae

Euphydryas phaeton phaeton (Drury) and *E.p. ozarkae* Masters

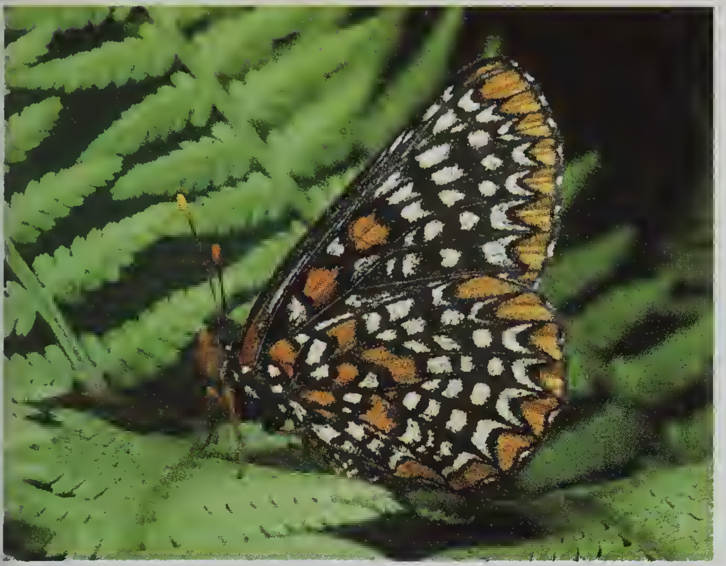
Description: Wingspan 1.75–2.75 in. Sexes similar. Females have the wings more rounded than males. Upperside black with orange-red marginal spots and several rows of whitish spots. Underside black with marginal and basal orange-red spots and a crowded scattering of off-white spots. *E.p. ozarkae* differs from *E.p. phaeton* in having a reduction of the marginal orange-red spots, and a reduction of those in the forewing cell. *E.p. ozarkae* is on average larger than *E.p. phaeton.*

Similar Species: None in Illinois.

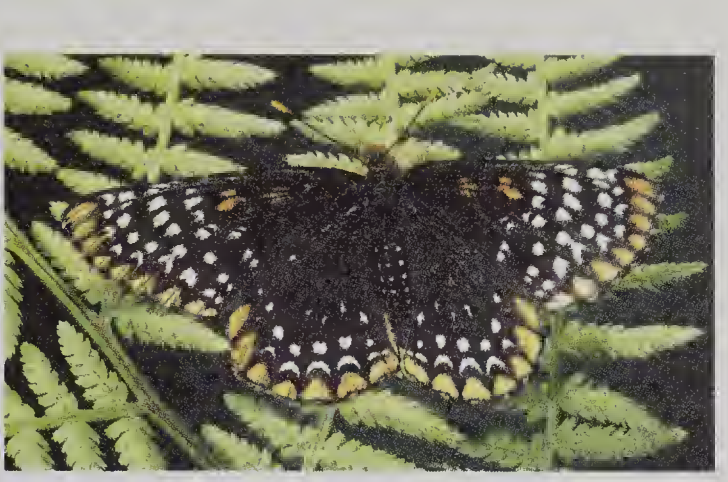
Habitat: *E.p. phaeton* occurs in close association with the larval host turtlehead (*Chelone glabra*) in the northern part of the state. The plant is a wetland species, as is the butterfly. *E.p. ozarkae* occurs in the southern half of the state where the plants (*Aureolaria* spp.) required as food by the early larval instars grow. Thus, it is found as an upland species, rather than limited to wetlands.

Natural History: Both subspecies are univoltine, with adults in June and July. Eggs are laid in masses on the larval hosts, *Chelone* for *E.p. phaeton* and *Aureolaria* for *E.p. ozarkae*. Young larvae spin silken nests. They overwinter when half-grown. In the spring they disperse and then feed on a variety of other kinds of plants. Adult Baltimores nectar on flowers such as milkweeds and various composites. Males search actively for females. *E.p. phaeton* does not wander far from its origin. *E.p. ozarkae* wanders more and may be found along trails, roads, and streams in its habitat.

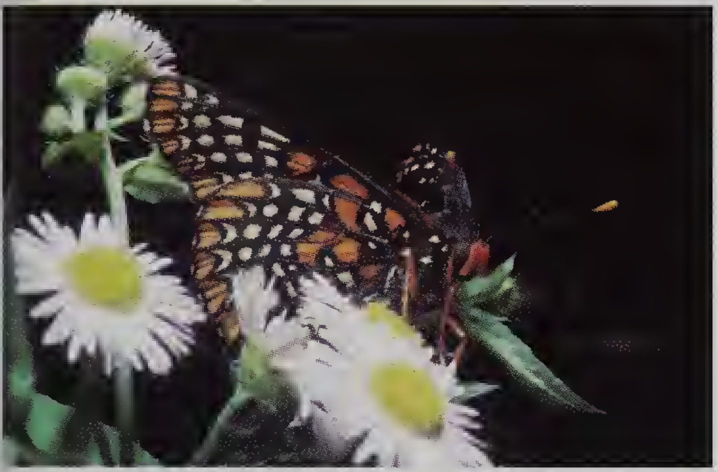
Status: *E.p. phaeton* is very local and uncommon in the northern part of the state. *E.p. ozarkae* is sometimes common, but more often uncommon and local in the southern half of the state.



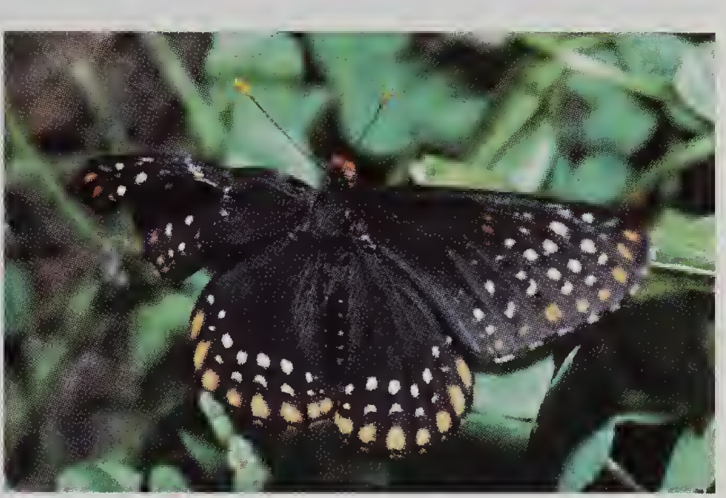
Male, Baltimore, Hillsdale County, MI.



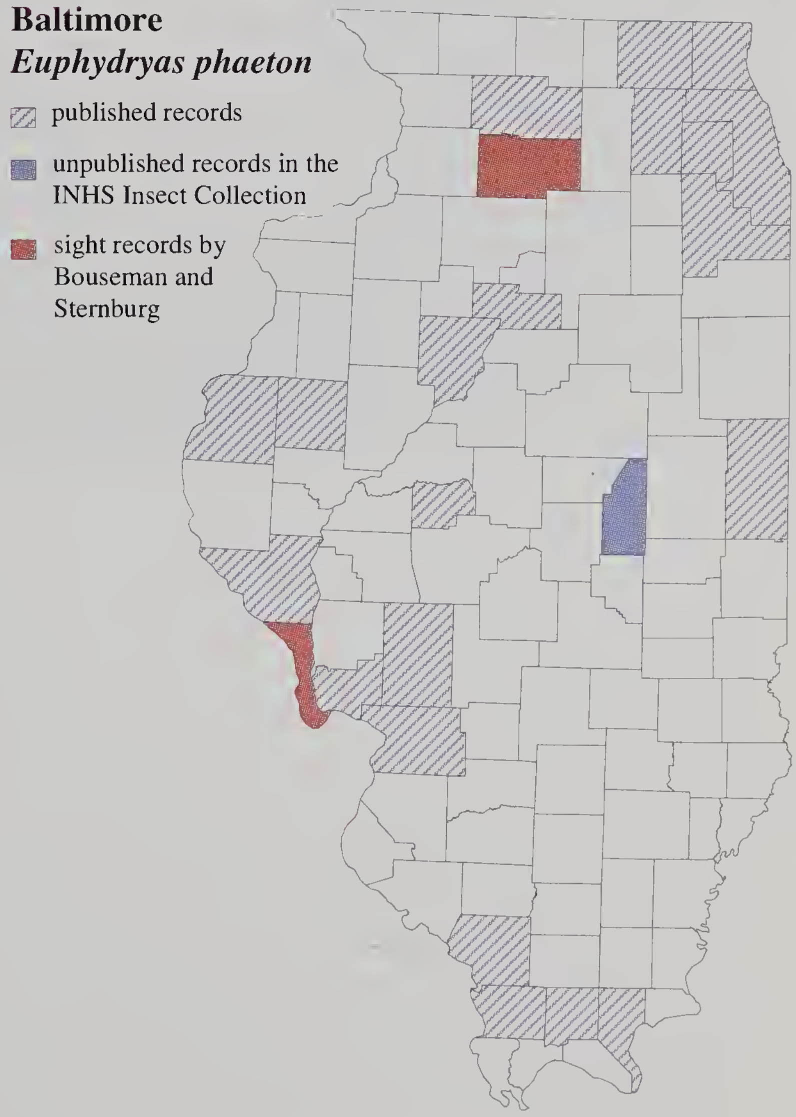
Male, Baltimore, Hillsdale County, MI.



Baltimore, Jackson County, IL.



Baltimore, Jackson County, IL.

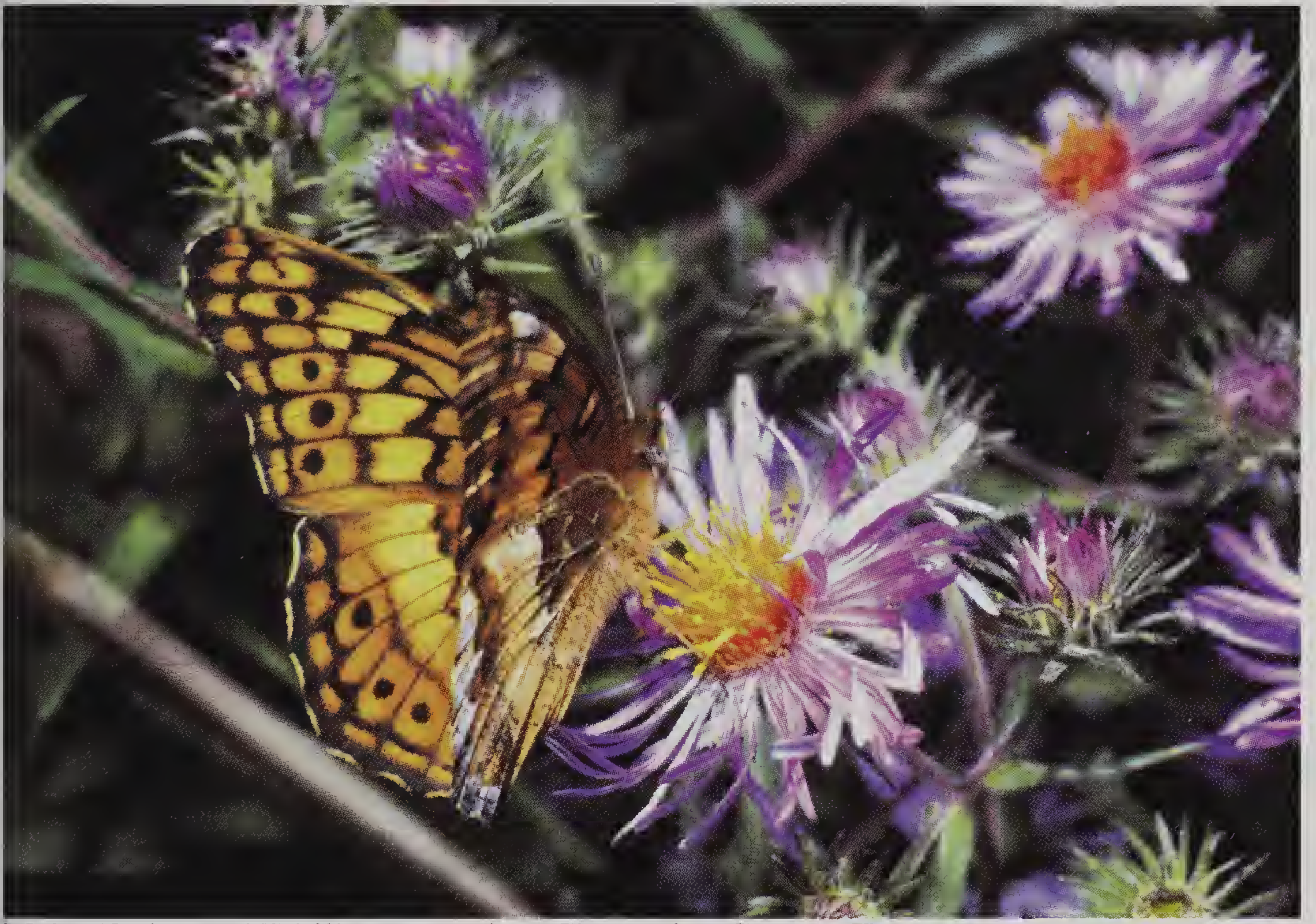


Baltimore
Euphydryas phaeton

▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Subfamily Heliconiinae: Fritillaries

The temperate representatives of this essentially tropical subfamily are called fritillaries. Our species are found in open areas or along forest margins. They rarely enter deep forests. Most feed as larvae on violets, and some also on passion vine. Three genera are permanent residents of Illinois: *Euptoieta* with one species, *Speyeria* with five, and *Boloria* with two. The Gulf Fritillary (*Agraulis vanillae*) occasionally is found in Illinois. The larvae are covered by branching spines, and are often dark-colored. Feeding is largely nocturnal. The life history of the large fritillaries of the genus *Speyeria* is unusual and is discussed separately.



Male, Variegated Fritillary nectaring, Champaign County, IL

Silver-bordered Fritillary — Nymphalidae, Heliconiinae

Boloria selene myrina (Cramer)

Description: Wingspan 1.25–2.0 in. Sexes alike. Tawny, orange-brown with black dots and bars. Hindwing underside with silver spots.

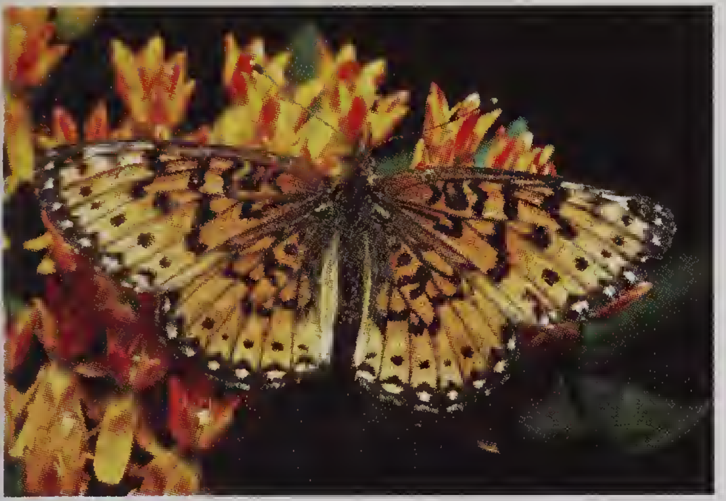
Similar Species: The Meadow Fritillary lacks any silver spots. It also has the forewings truncate, unlike the Silver-bordered Fritillary.

Habitat: Meadows, prairies, roadsides, often in moist areas.

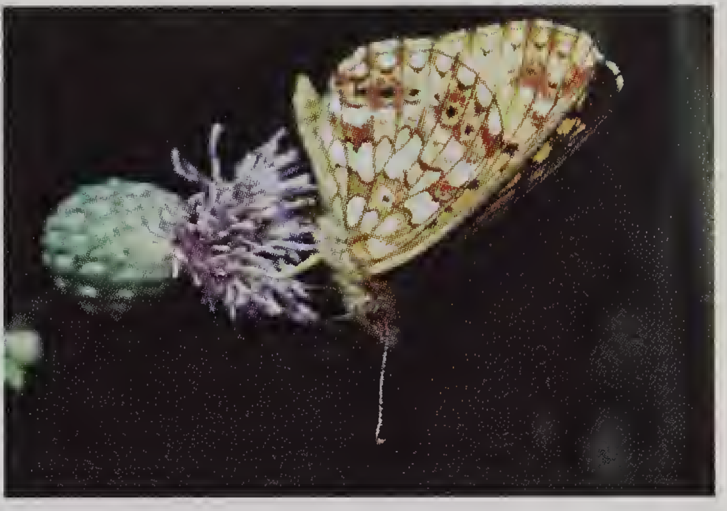
Natural History: There are three broods, with adults present from May to September. Eggs are laid on or near violets (*Viola* spp.). Newly hatched or partially grown larvae overwinter. Adult males patrol in search of females. Both sexes nectar at a variety of flowers, depending on seasonal availability. Flight is low and slow, but if the butterfly is disturbed it becomes fast.

Status: Locally common to uncommon in the northern half of the state.

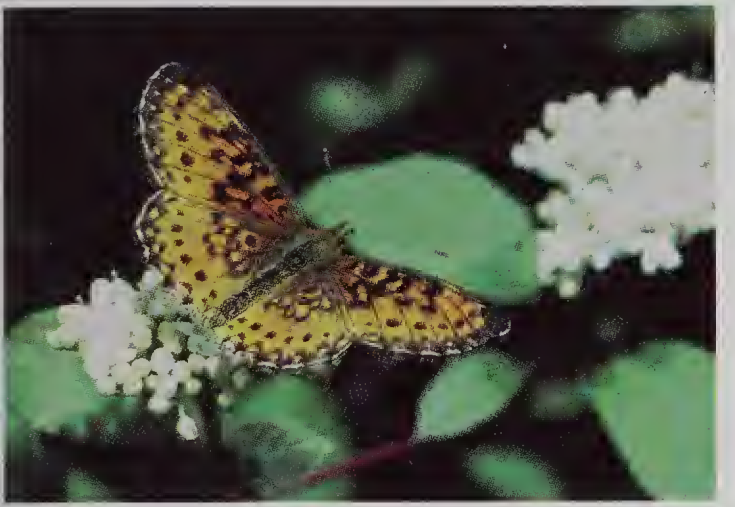
Remarks: Some Illinois specimens are larger than typical *B.s. myrina,* and resemble the subspecies *B.s. nebraskensis.*



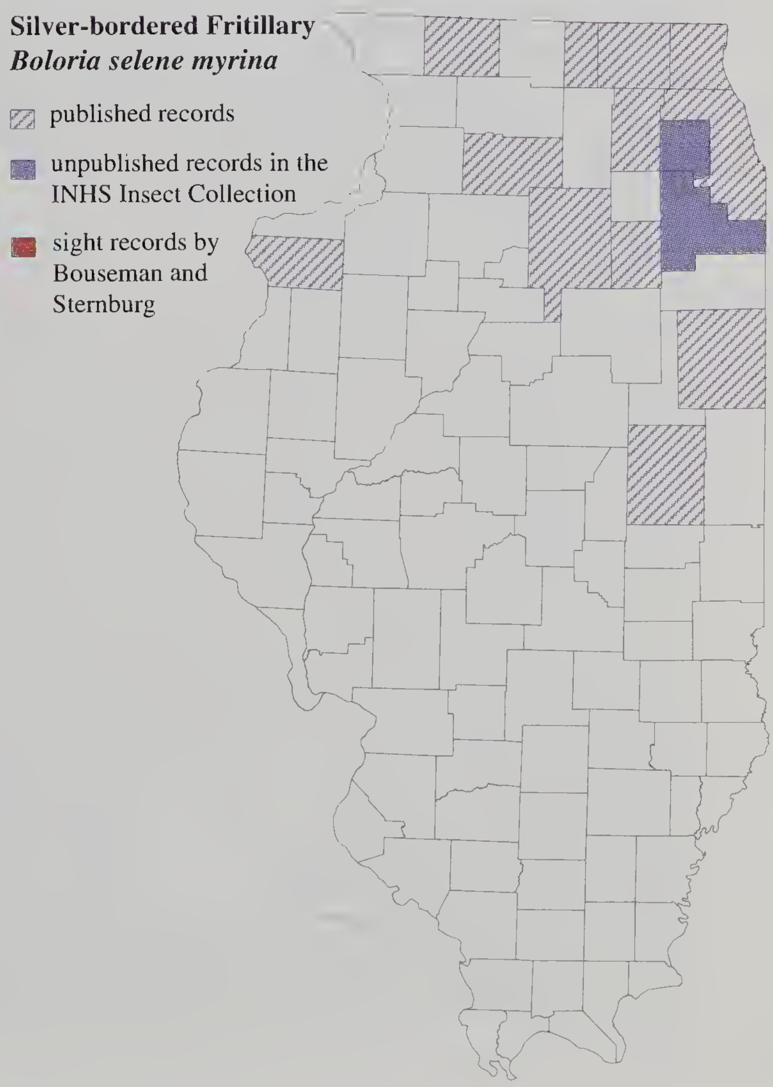
Female, Silver-bordered Fritillary, Lee County, IL.



Male, Silver-bordered Fritillary, Iroquois County, IL.



Male, Silver-bordered Fritillary, Iroquois County, IL.


Silver-bordered Fritillary
Boloria selene myrina
▨ published records
🟪 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Meadow Fritillary — Nymphalidae, Heliconiinae

Boloria bellona (Fabricius)

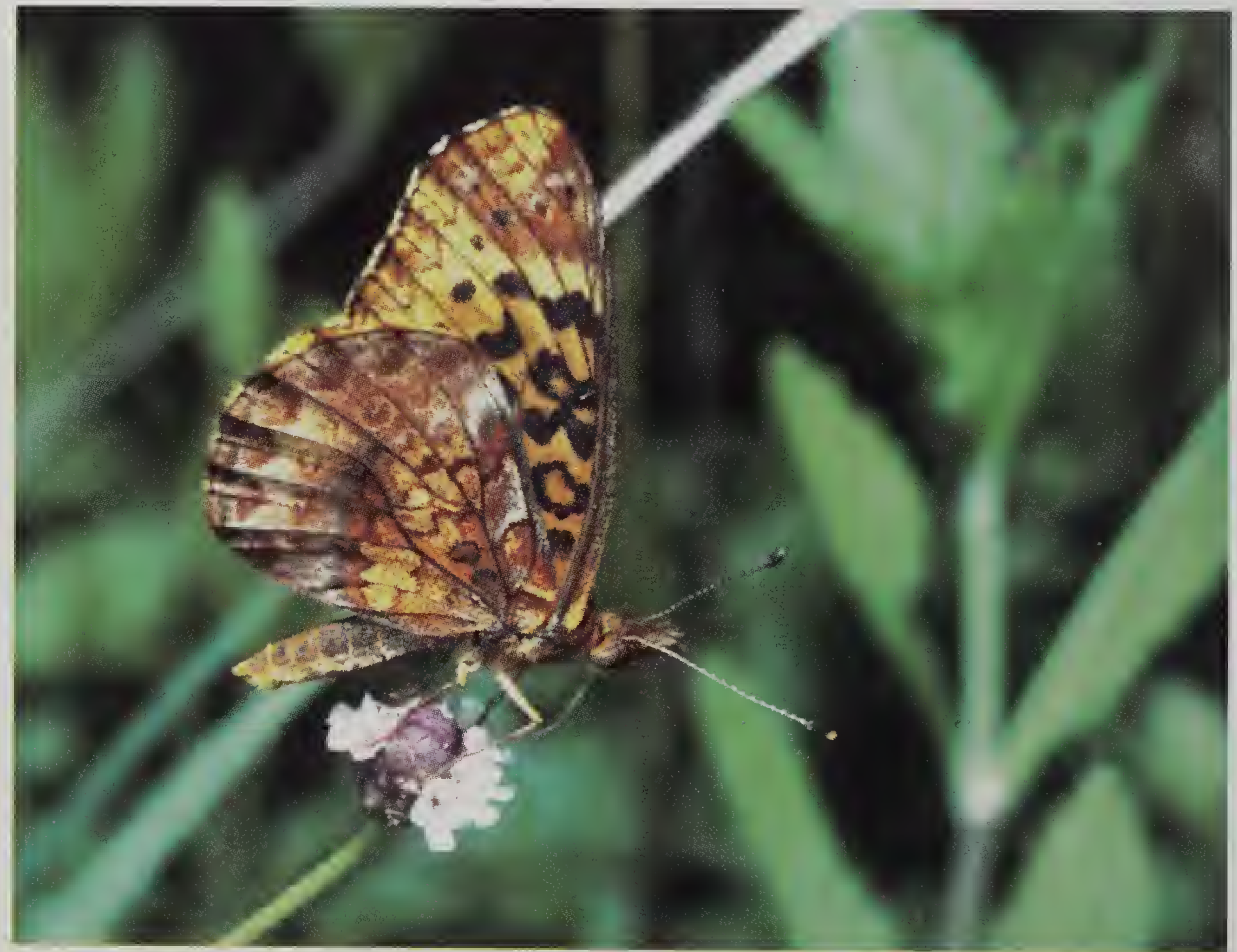
Description: Wingspan 1.5–2.0 in. Sexes alike. Upperside tawny, orange-brown with dark spots and bars. On the underside, the wings are brown, gray, and purplish with a varied pattern. There are no silver spots. The forewings have the apex truncated.

Similar Species: Silver-bordered Fritillary has silver spots and does not have truncated frontwings.

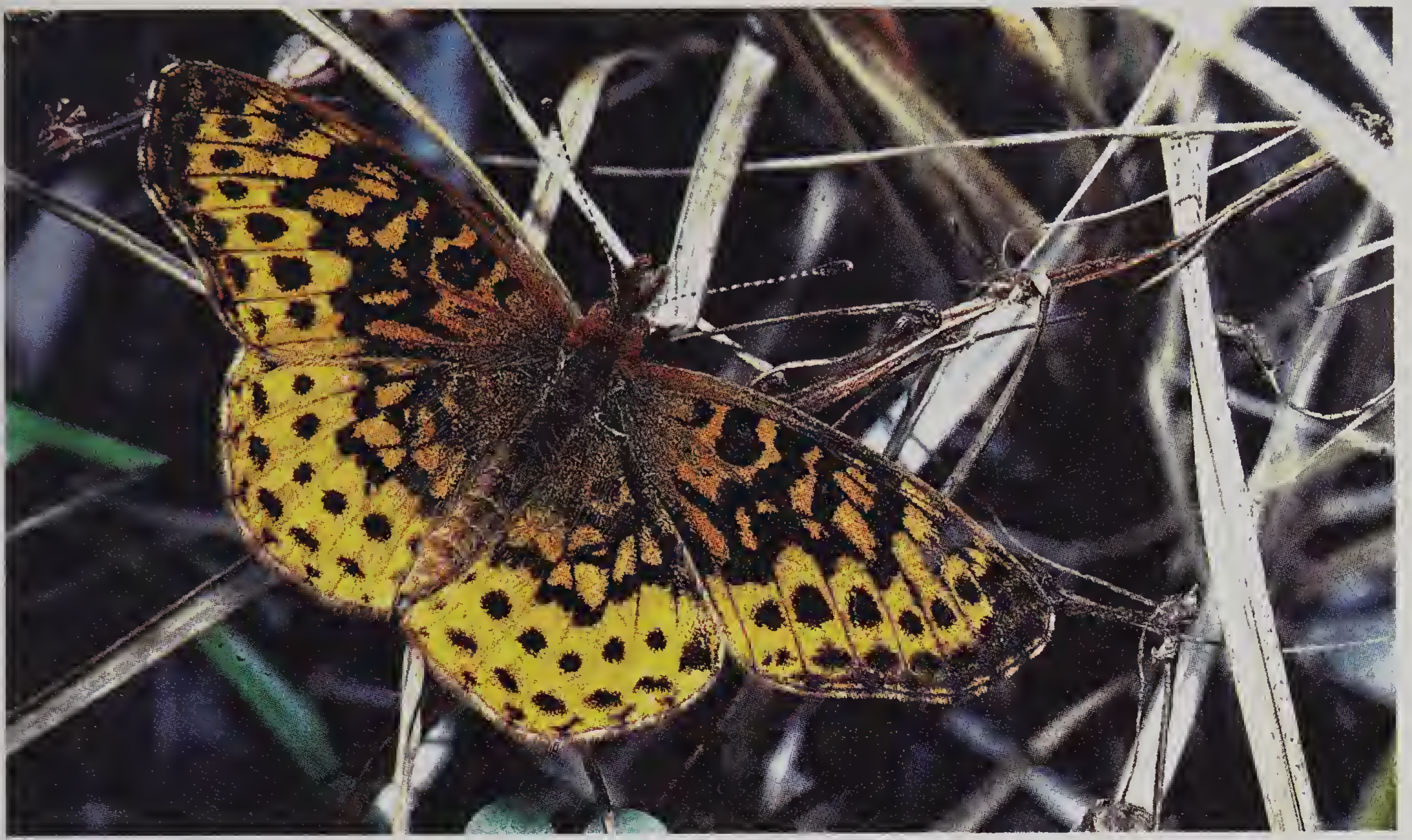
Habitat: Wet meadows, pastures, marshy areas, roadsides, occasionally in suburban areas.

Natural History: Multivoltine, at least three broods. Adult flight from April into September. Overwinters as young larvae. Males patrol for females. Eggs are laid on or near violets. Both sexes nectar at a variety of flowers, depending on the season.

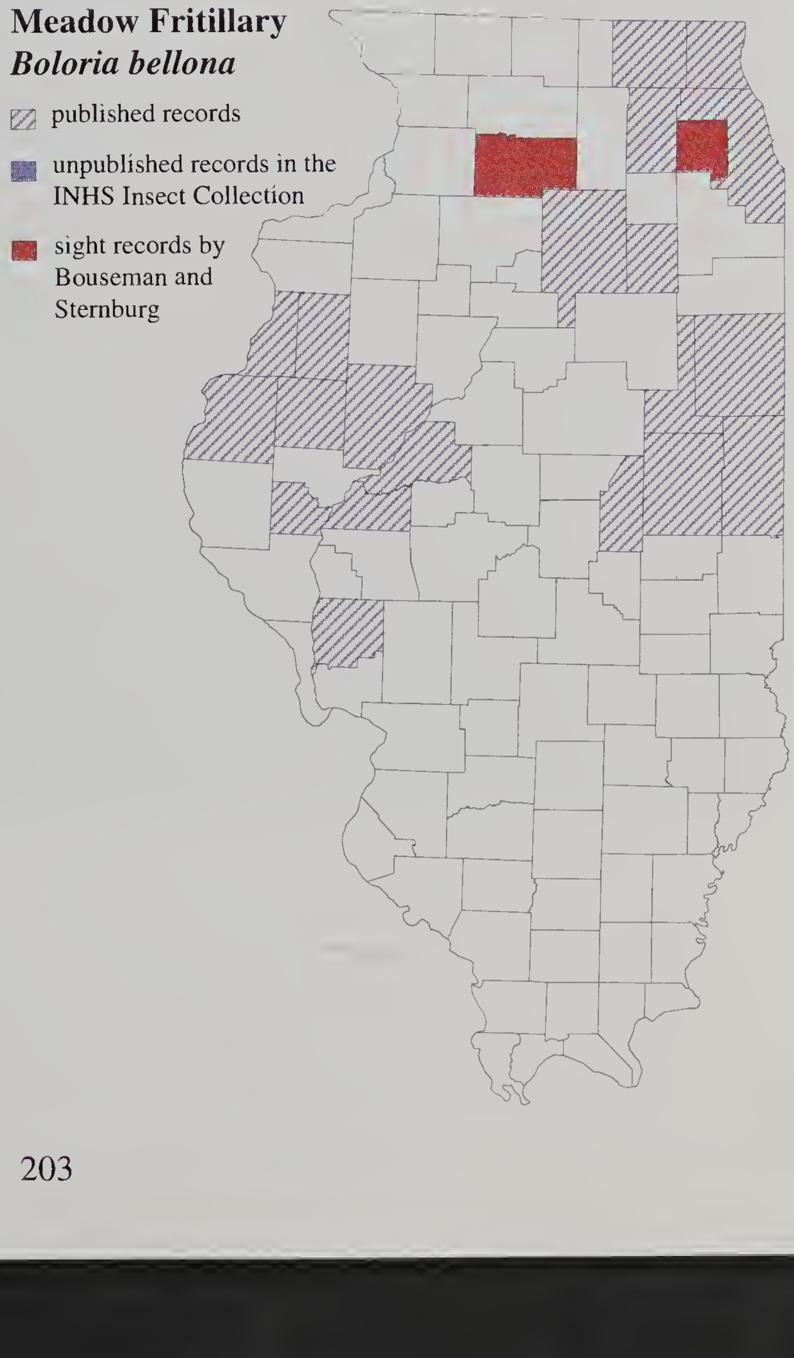
Status: Locally common in suitable habitat. The species extends farther south than does *B. selene*.



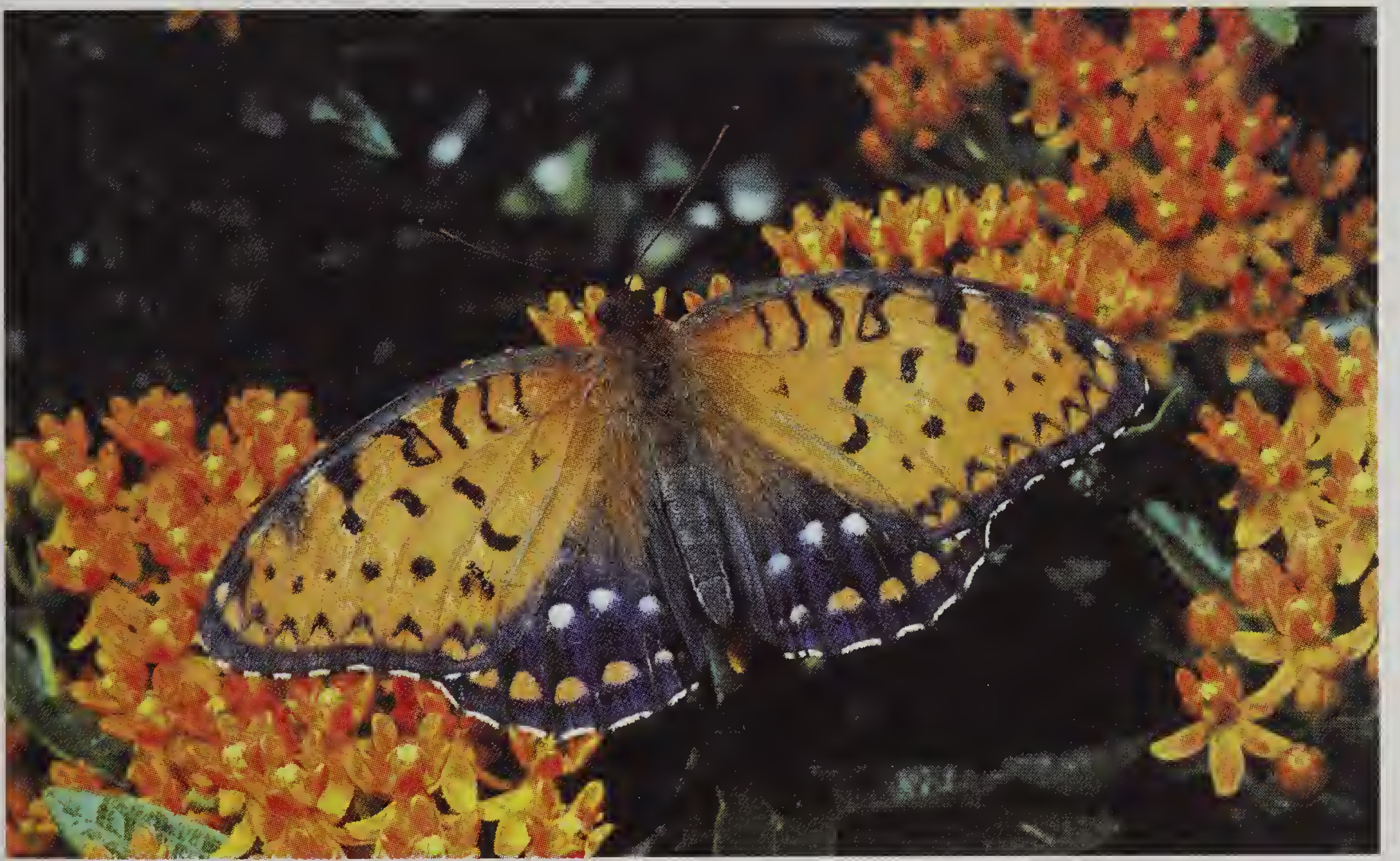
Male, Meadow Fritillary, Vermilion County, IL.



Male, Meadow Fritillary, Vermilion County, IL.


Meadow Fritillary
Boloria bellona
▨ published records
■ unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Genus *Speyeria*: Greater Fritillaries. These occur only in North America, with a dozen or so described species, most of them western. They are mid-sized to large insects, usually orange-brown or tawny, with broad wings, many dark spots, and most of them with silver spots on the underside of the hindwings. Three species occur as regular breeding residents in Illinois: *S. cybele, S. aphrodite,* and *S. idalia.* In addition, *S. atlantis* in some years extends its range from Wisconsin into northern Illinois. A fifth species, *S. diana*, has long been extirpated from the state. All of the species have similar life histories. They are univoltine, the males emerging in June (sometimes May) several weeks before the first emergence of females. Males patrol in search of females, often flying low, probing in low vegetation and grassy sites for newly emerged females. Females often mate before their first flight. Males are commonly present and active for several months. During most of the summer the females aestivate, becoming active again in late summer and fall, when oviposition on or near violets takes place. Various species of violets (*Viola* spp.) are the sole larval hosts. Eggs hatch in the fall, the first instars eat the chorion (egg shell), sometimes also some violet leaf, and then go into winter diapause. Further development occurs the next spring. Larvae feed at night and hide during daylight hours. Pupation is on low vegetation.



Male, Regal Fritillary nectaring, Mason County, IL.

Regal Fritillary — Nymphalidae, Heliconiinae

Speyeria idalia (Drury)

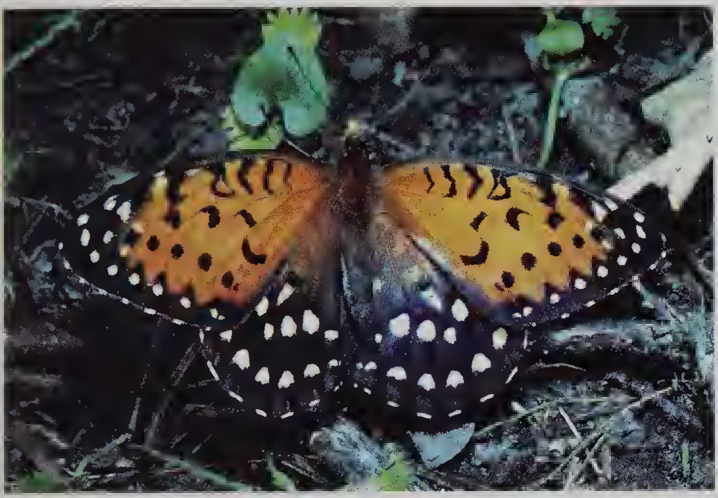
Description: Wingspan 3.0–4.0 in. Sexes differ slightly; males have orange marginal spots on the hindwing upperside, females have the same spots yellow-white. On the underside, the hindwings of both sexes have white rather than silver spots. On the upperside, the hindwings are blue-black, with a violet iridescence in young adults. Forewings are bright orange-brown with conspicuous black markings.

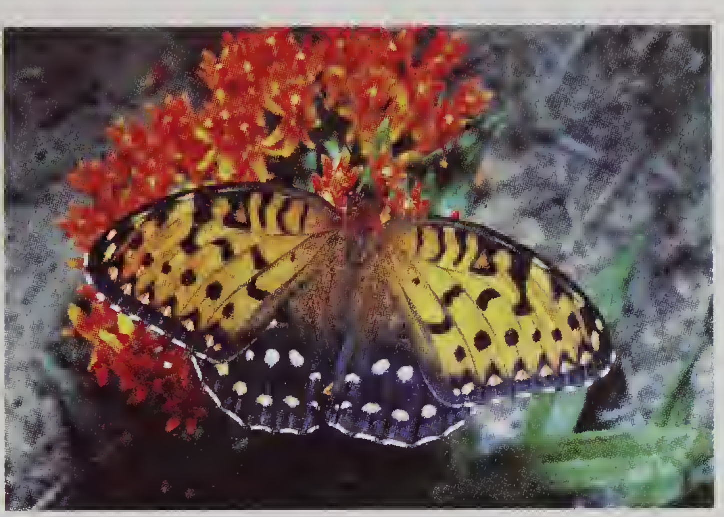
Similar Species: None. Unique.

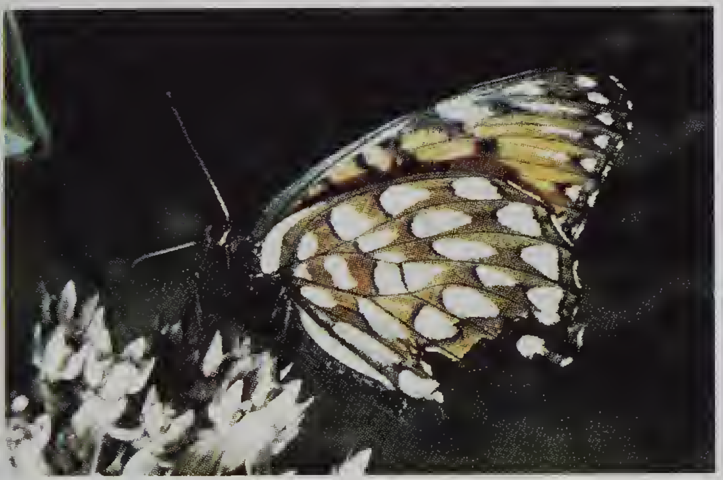
Habitat: Midwestern Regal Fritillaries occur in prairie or open environments, frequently in sandy regions.

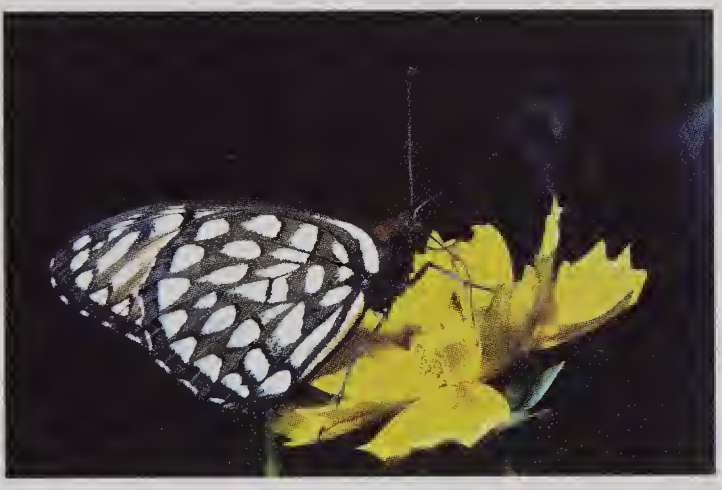
Natural History: Much like our other *Speyeria* spp. Refer to discussion of the genus. Males are active during sunny weather from mid-morning into the afternoon, flying low over open areas, often close to the ground and into clumps of low vegetation in search of females. This behavior is also seen in *S. aphrodite* and *S. cybele*, although not as conspicuously as in this species. Its flight appears more fluttery than that of the other species. Males and females feed eagerly at milkweeds, thistles, and other prairie flowers. Eggs are deposited in late summer and early fall in the vicinity of violets.

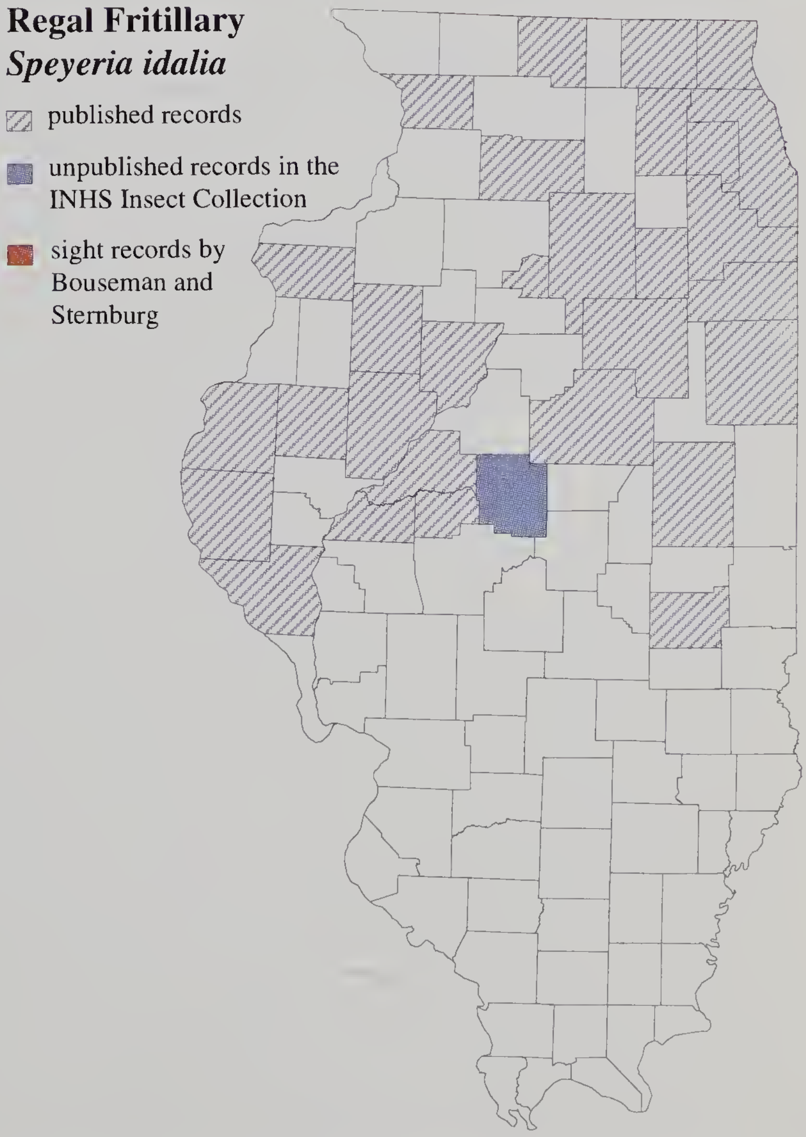
Status: Northern third of Illinois, in scattered populations, sometimes common for several years, then scarce for a time, followed by resurgence. Locally common to scarce. It is found from Cook, Will, and Iroquois counties west to the Mississippi River, and south to Mason County. Its range is mostly coincident with a band of sandy original true prairie located in the northern part of the state. State endangered.


Female, Regal Fritillary, Mason County, IL.


Male, Regal Fritillary, Iroquois County, IL.


Female, Regal Fritillary (with bird damage), Mason County, IL.


Male, Regal Fritillary, Mason County, IL.


Regal Fritillary
Speyeria idalia
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Atlantis Fritillary Nymphalidae, Heliconiinae

Speyeria atlantis (W.H. Edwards)

Description: Wingspan 2.4–2.8 in. Sexes somewhat similar, with females more heavily marked. Distinguishing characteristics are the black margins of the forewings, the purplish brown color of the hindwing disc on the underside, and the black scaling along the wing veins of the upperside. There is a narrow hindwing submarginal buff band on the underside. The upperside of the forewing has a basal dark spot behind the discal cell, as found in *S. aphrodite.*

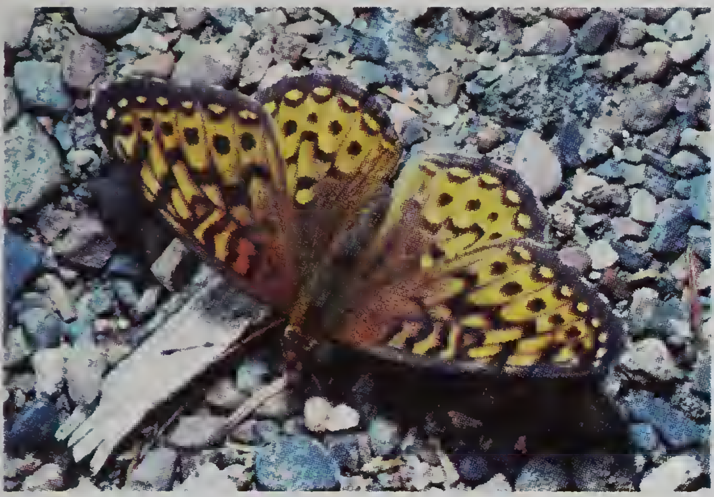
Similar Species: Easily confused with *S. aphrodite.* The latter has no black scaling along the veins and usually lacks black marginal bands.

Habitats: Open areas, meadows, fields, roadsides, prairies.

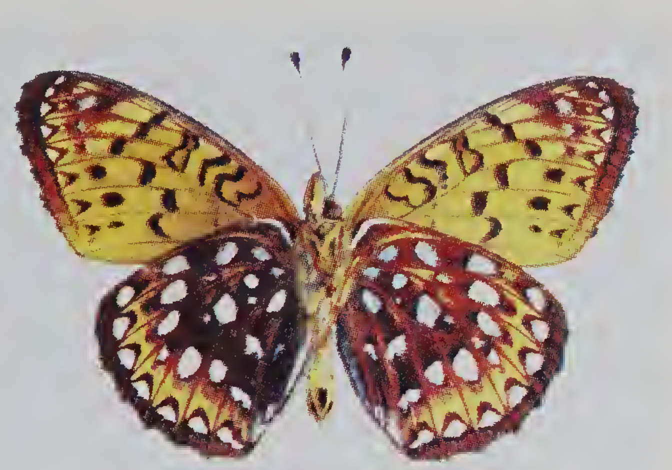
Natural History: Refer to discussion of genus.

Status: Scarce, limited to northeastern counties. May not be a permanent breeding resident. The species is common farther north in Wisconsin. It may be overlooked in the presence of *S. aphrodite*, which it closely resembles from a distance.

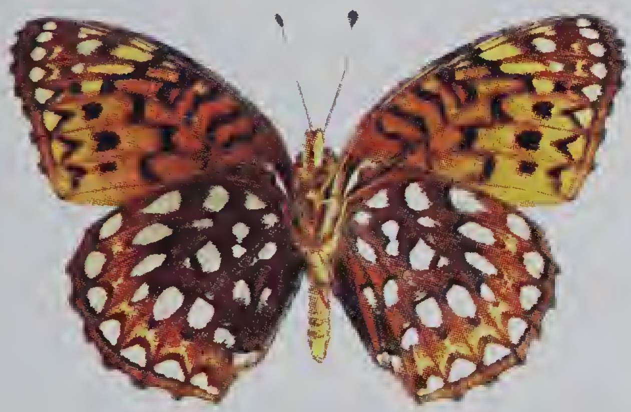
Remarks: This species is also known as the Mountain Fritillary.



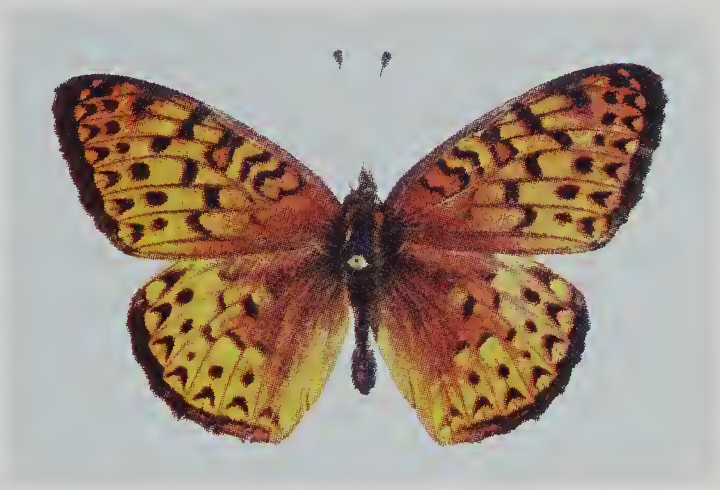
Female, Atlantis Fritillary, Ontario, Canada.



Male, Atlantis Fritillary, underside, Ontario, Canada.

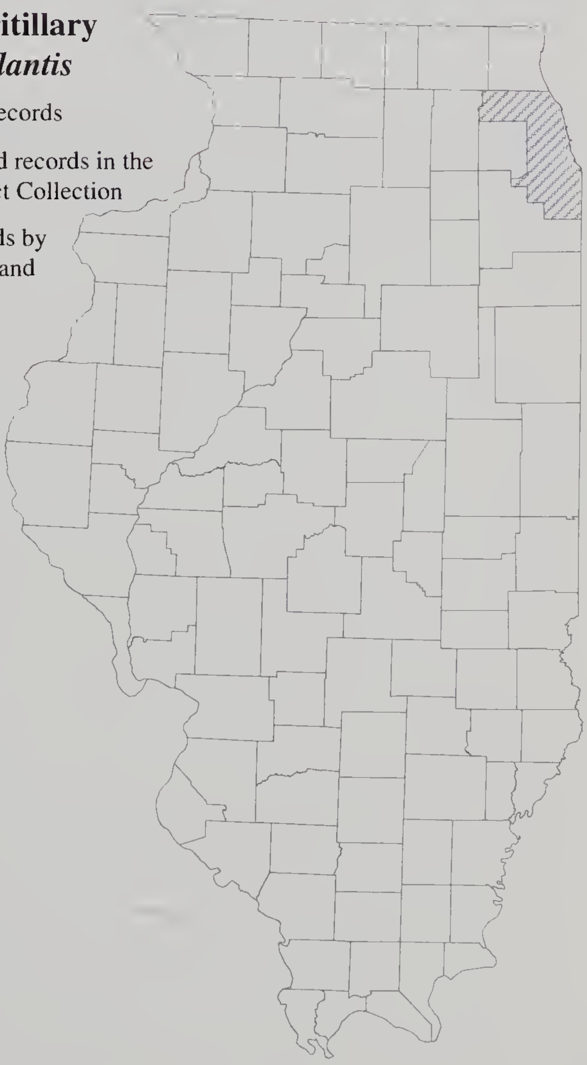


Female, Atlantis Fritillary, underside, Ontario, Canada.



Male, Atlantis Fritillary, upperside, Ontario Canada.

Atlantis Fritillary
Speyeria atlantis



▨ published records

🟪 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg

Diana Fritillary

Nymphalidae, Heliconiinae

Speyeria diana (Cramer)

Description: Wingspan 3.5–4.5 in. Sexually dimorphic. Males have the outer third of the wings orange-brown, the basal two-thirds dark brown. Females have a blue outer third and a black basal two-thirds. On the underside, neither sex has silver spots, unlike our other large fritillaries.

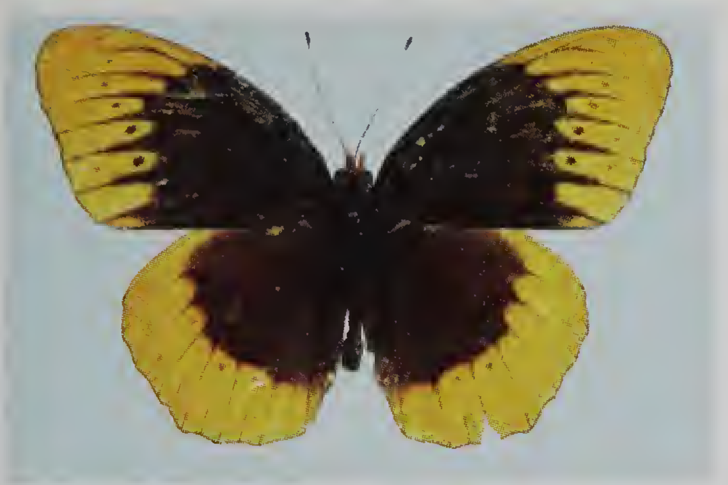
Similar Species: None. Diana is unique and unmistakable.

Habitat: Openings and edges of forests, along wooded roads and streams. It is more of a forest species than the other fritillaries.

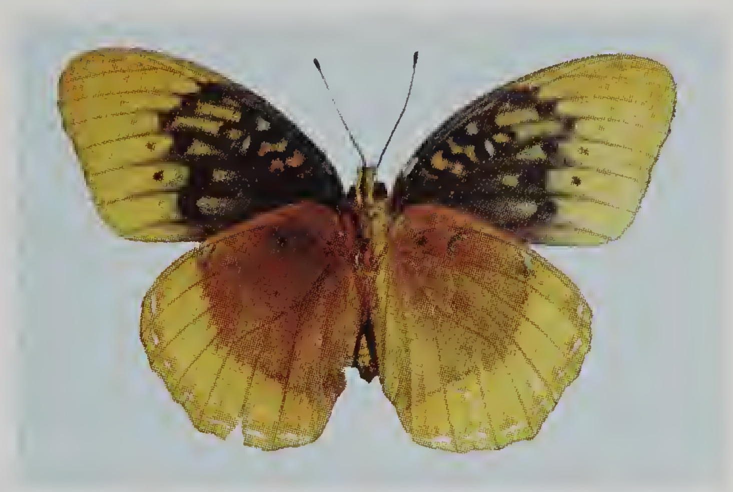
Natural History: Refer to the genus discussion.

Status: The Diana Fritillary occurred in the southern third of Illinois in the 19th century, but is now extirpated from Illinois. The butterfly is an inhabitant of forested regions, and its disappearance is likely due to clearing of the forests. Viable populations still occur in Tennessee and Arkansas, not all that far from Illinois, and with the return of more forest land to southern Illinois, *S. diana* may reestablish breeding populations. Occasional specimens have been captured in Indiana in recent years, and a few individuals of the species have been reported from the Missouri Ozarks.

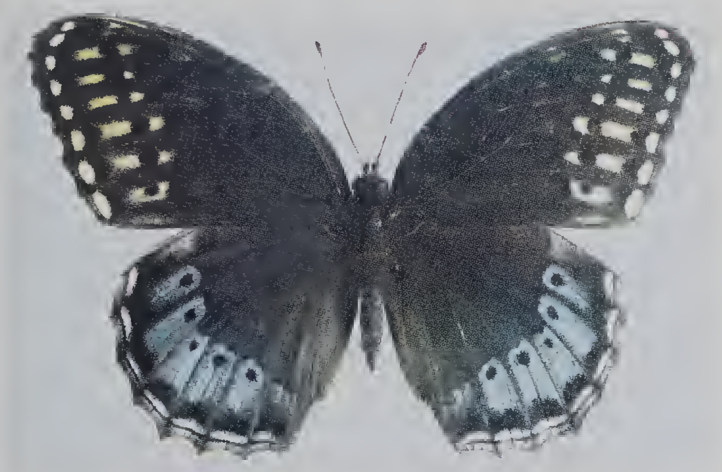
Remarks: Females are likely Batesian mimics of the toxic Pipevine Swallowtail, *Battus philenor*. Females tend to remain close to wooded areas, while males may roam farther.



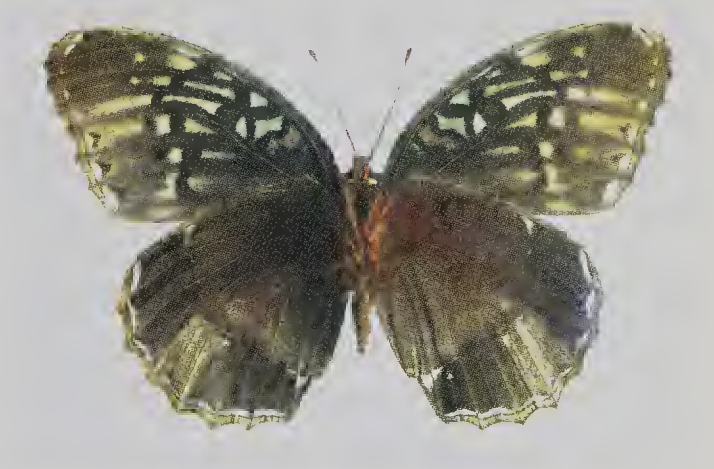
Male, Diana Fritillary, upperside, Montgomery County, VA.



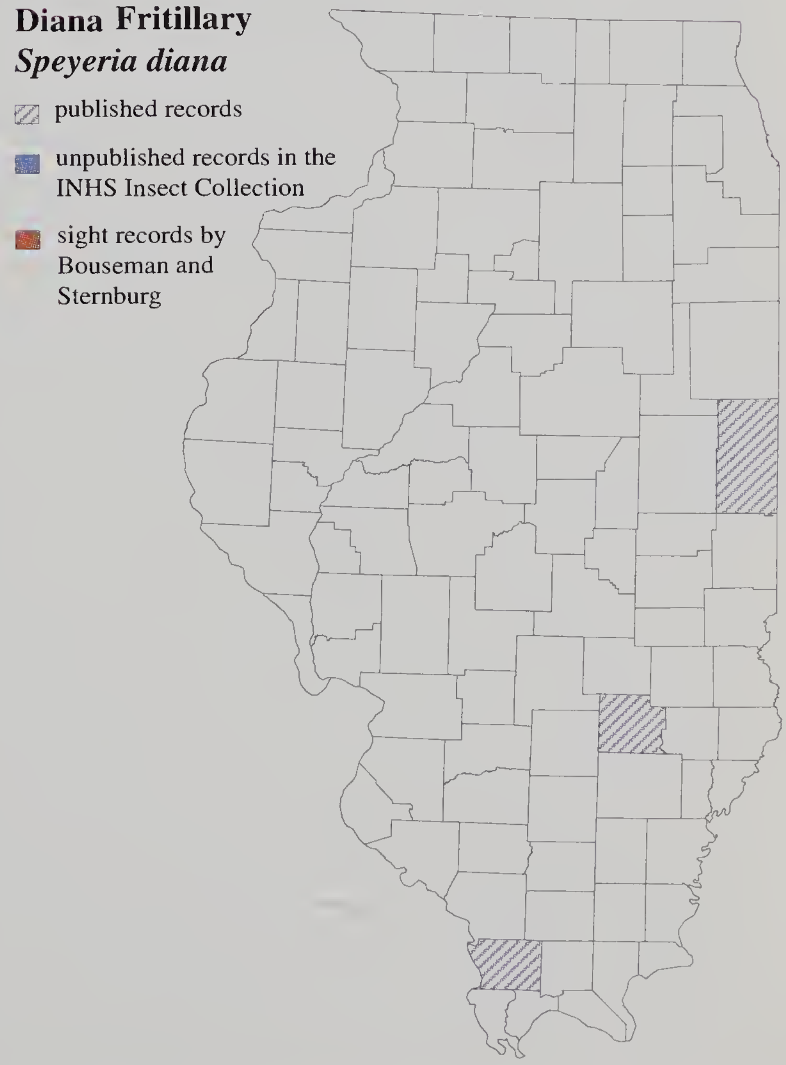
Male, Diana Fritillary, underside, Montgomery County, VA.



Female, Diana Fritillary, upperside, Montgomery County, VA.



Female, Diana Fritillary, underside, Montgomery County, VA.


Diana Fritillary
Speyeria diana
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Great Spangled Fritillary — Nymphalidae, Heliconiinae

Speyeria cybele (Fabricius)

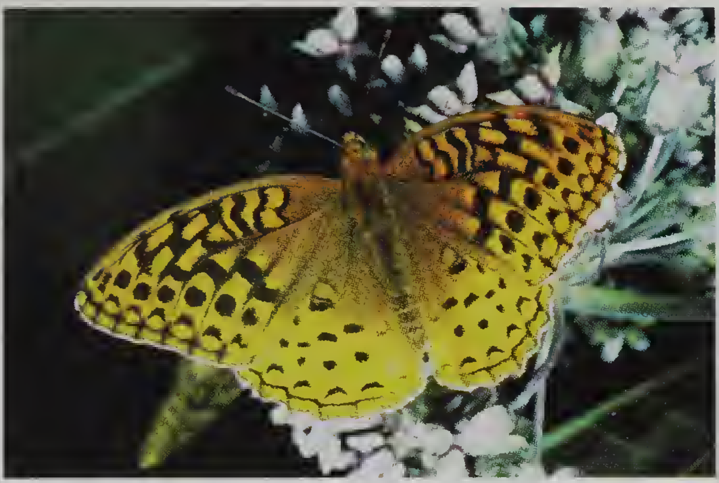
Description: Wingspan 3.4–4.0 in. Basic color orange-brown. Sexes similar in color pattern with females less reddish and more heavily marked. Hindwing underside with metallic silver spots and a broad tan submarginal band. Forewing without a basal dark spot below the discal cell.

Similar Species: Aphrodite Fritillary and Atlantis Fritillary each have a black spot below the cell of the forewing on the upperside. On the underside, they have the hindwing submarginal band encroached upon or obliterated by the basal ground color.

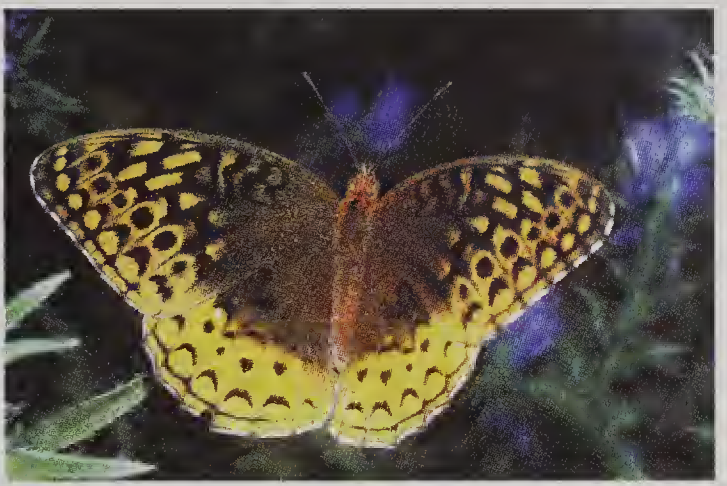
Habitat: Open areas or forest margins, meadows, prairies, roadsides, gardens, open savanna woods.

Natural History: Univoltine. Adults appear on the wing in June, with the males emerging several weeks before the females. Refer to the general description of the genus *Speyeria* for details. The Great Spangled Fritillary wanders more widely than other members of its genus in Illinois and is often seen at city parks and gardens, far removed from its usual habitats.

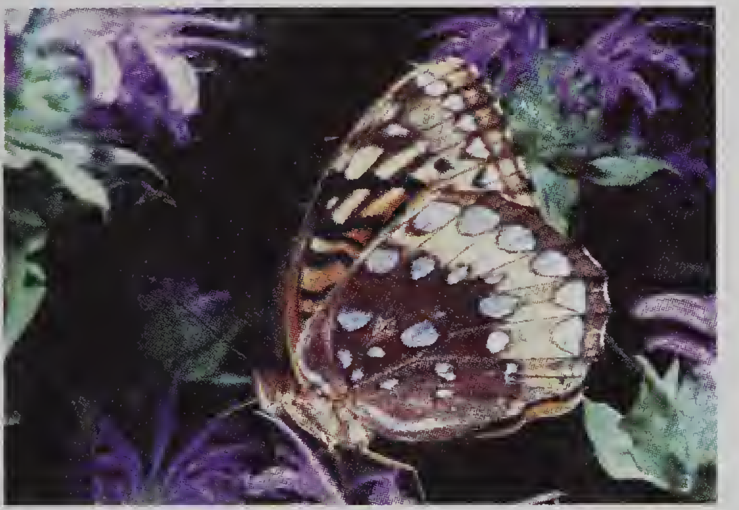
Status: Common to uncommon statewide, depending on favorable conditions for any particular year.



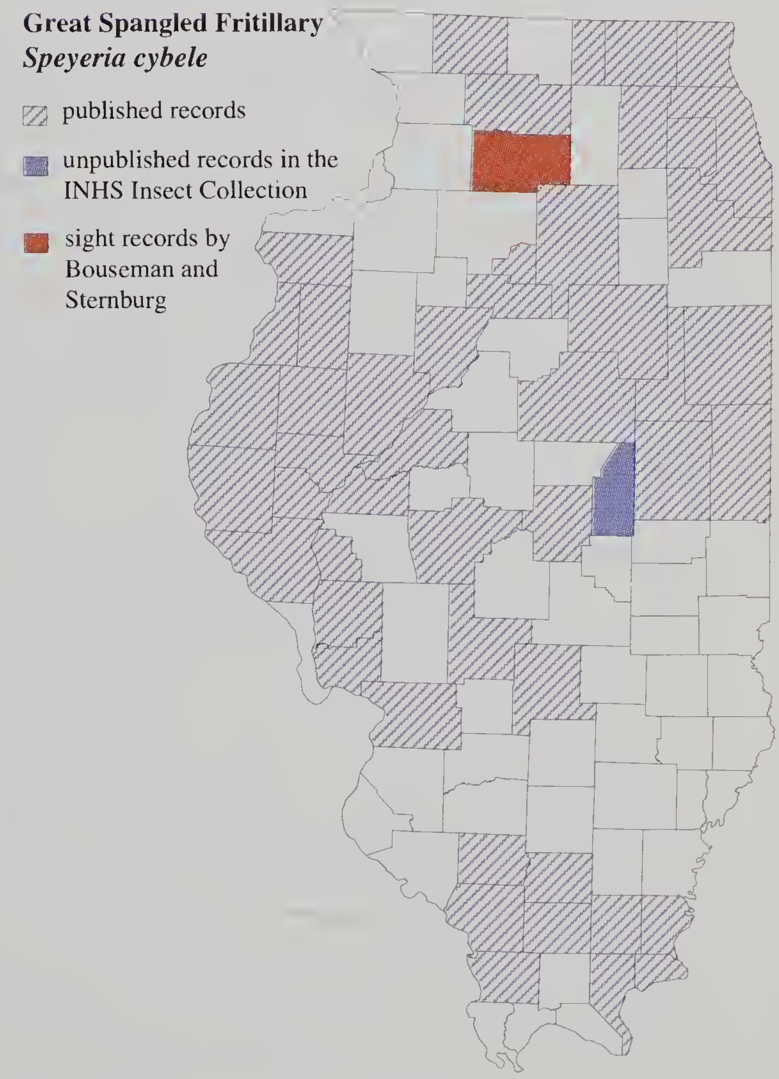
Male, Great Spangled Fritillary, Iroquois County, IL.



Female, Great Spangled Fritillary, Wayne County, MO.



Female, Great Spangled Fritillary, Wayne County, MO.



Great Spangled Fritillary
Speyeria cybele

▨ published records
🟪 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Aphrodite Fritillary — Nymphalidae, Heliconiinae

Speyeria aphrodite (Fabricius)

Description: Wingspan 2.5–3.5 in. Sexes with similar markings; females larger, darker, and more brightly colored on the underside. Hindwing underside has a narrow submarginal band, more or less invaded by the darker color of the base of the wing. On the upperside, the forewing has a black spot below the discal cell. There is no black scaling along the wing veins. Two forms occur in Illinois, regarded by some as subspecies. The typical form of eastern populations, with the submarginal hindwing band only partially obscured, occurs in the more northern counties. South of this region, populations tend to have the submarginal band totally obscured by invasion of the basal ground color. The latter have been named *S. a. alcestis* to distinguish them from the typical *S. a. aphrodite*. The ranges of the two overlap, suggesting either two color morphs of one species or two species.

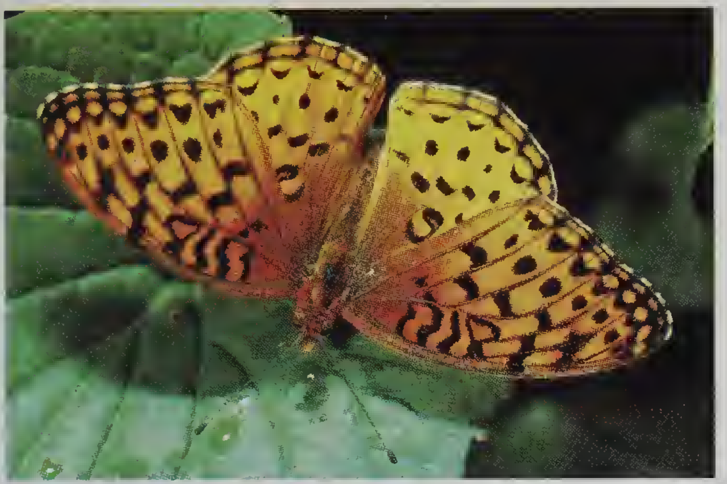
Similar Species: *S. aphrodite* and *S. atlantis* are easily confused. *S. atlantis*, in the eastern U.S., has the marginal bands of the frontwings black; in *S. aphrodite* this is usually orange-brown. Some individuals, especially females of *S. a. alcestis,* have the margins dark and could be confused with *S. atlantis*. However, their underside hindwings will identify them. *S. atlantis* has the basal color of the hindwings purplish brown instead of red-brown as in *S. aphrodite*.

Habitat: Open areas, prairies, sandy areas, roadsides.

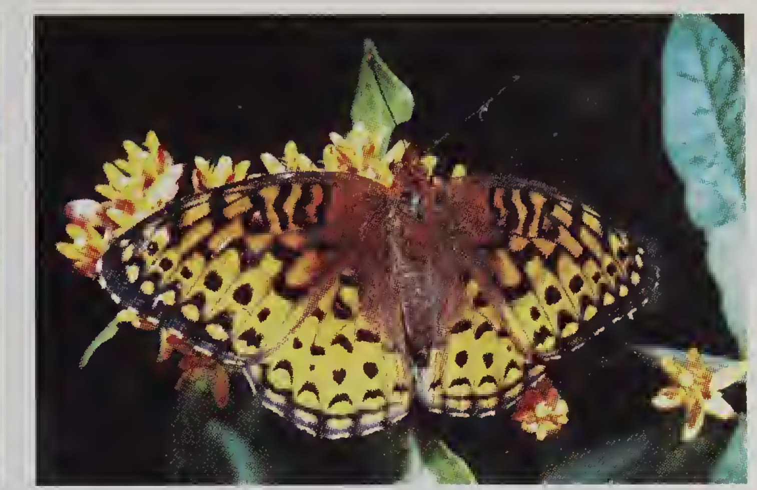
Natural History: Refer to the discussion under the genus *Speyeria*. Aphrodite often occurs with the other *Speyeria* species. It tends to be more restricted to preferred habitat and does not wander, as does the Great Spangled Fritillary.

Status: Found in the northern third of the state. Locally common to scarce, varying from year to year.

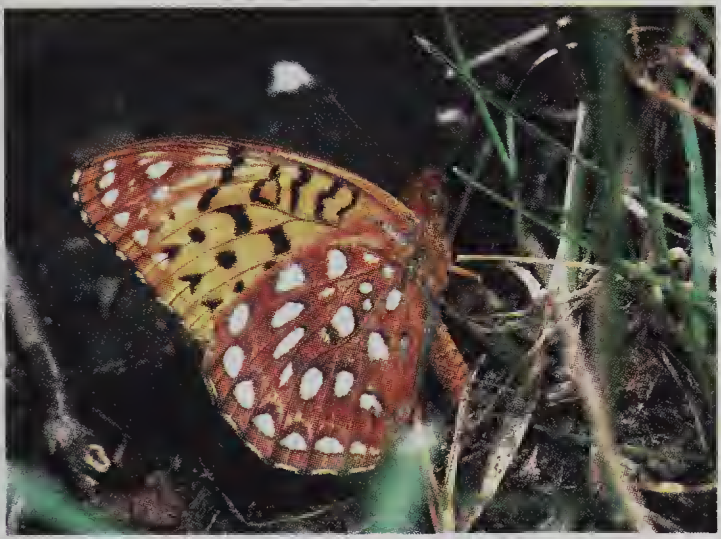
Remarks: The undersides of females of Aphrodite rank with the most beautiful of our butterflies. The silver spots in a field of dark red-brown are outstanding.



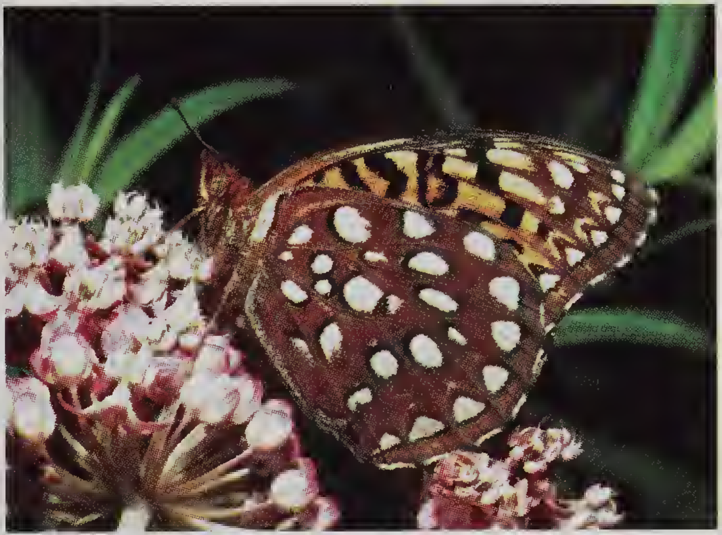
Male, Aphrodite Fritillary, Iroquois County, IL.



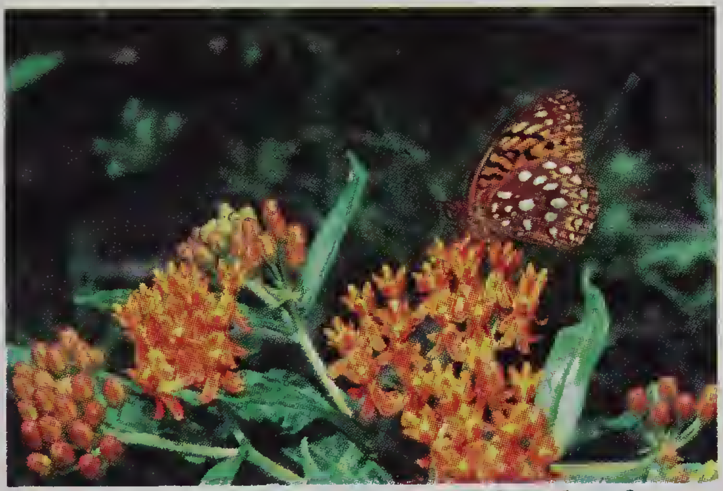
Female, Aphrodite Fritillary, Iroquois County, IL.



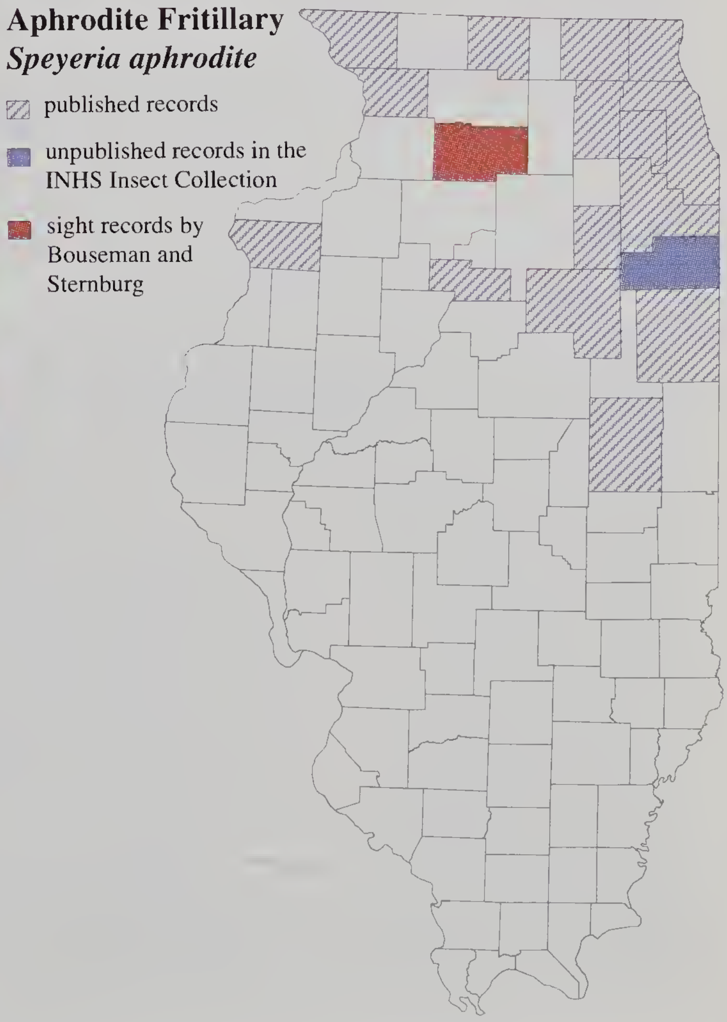
Male, Aphrodite Fritillary, Iroquois County, IL.



Female, Aphrodite Fritillary, *alcestis* form, Iroquois County, IL.



Male, Aphrodite Fritillary, *aphrodite* form, Iroquois County, IL.



Aphrodite Fritillary
Speyeria aphrodite
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Variegated Fritillary — Nymphalidae, Heliconiinae

Euptoieta claudia (Cramer)

Description: Wingspan 1.75–2.75 in. Sexes fairly similar, with females more heavily marked and larger. Tawny (dull yellow-brown) with a complex pattern of many dark spots and lines, giving a checkered appearance. Underside of wings with mottled light and dark areas without silver spots. Wing margins with shallow scallops.

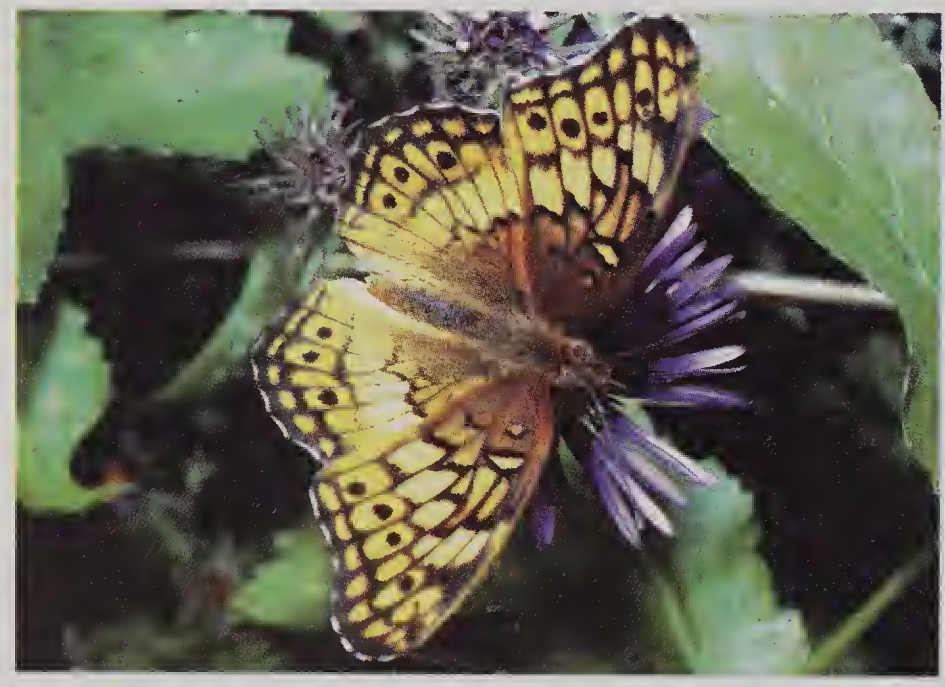
Similar Species: None in Illinois. However, from a distance it can be confused with the American Painted Lady.

Habitat: Found along roadsides, in pastures, parks, prairies, and other open areas, generally where the vegetation is low.

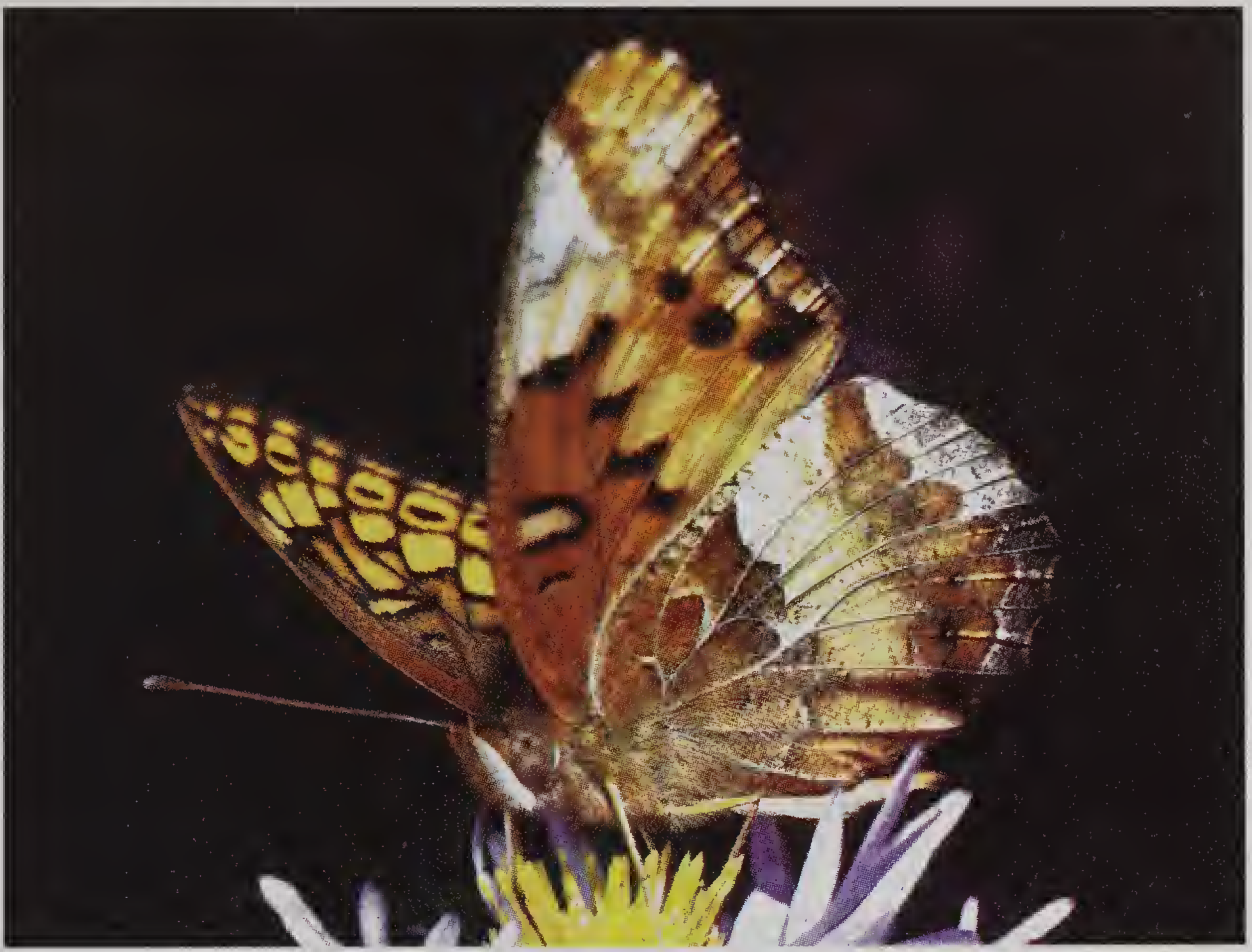
Natural History: Summer multivoltine breeding resident. The species rarely survives an Illinois winter. Each year the state is reinvaded by migrants from the south, where it is a permanent resident. The species appears in May and early June, with the population becoming highest in late summer and early fall. Males patrol in search of females. Eggs are laid on passion vines (*Passiflora* spp. in southern Illinois), violets, and numerous other plants. Adults nectar on a wide variety of flowers, including many composites and legumes, such as clover in lawns and other open areas.

Status: Variable in population density from year to year, sometimes common, more often not common but present. Summer breeding populations.

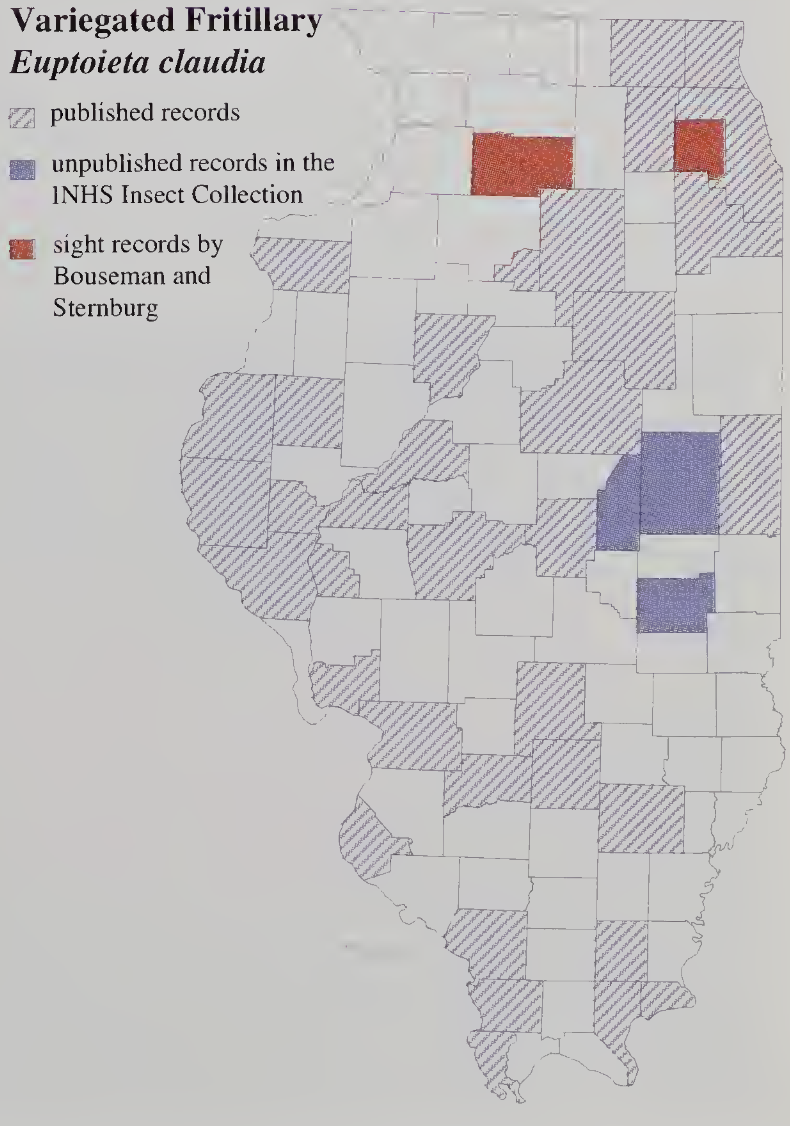
Remarks: Its range extends from Canada as a migrant or stray to the southern U.S., Mexico, and Central America.



Variegated Fritillary, Champaign County, IL.



Variegated Fritillary, Champaign County, IL.



Variegated Fritillary
Euptoieta claudia

▨ published records
■ unpublished records in the INHS Insect Collection
■ sight records by Bouseman and Sternburg

Gulf Fritillary — Nymphalidae, Heliconiinae

Agraulis vanillae (Linnaeus)

Description: Wingspan 2.5–3.0 in. Sexes similar, but females have more and darker markings. Upperside bright orange-brown with black markings and several prominent white spots on the forewing. Underside with brilliant silver spots on the hindwings. This is a truly spectacular insect.

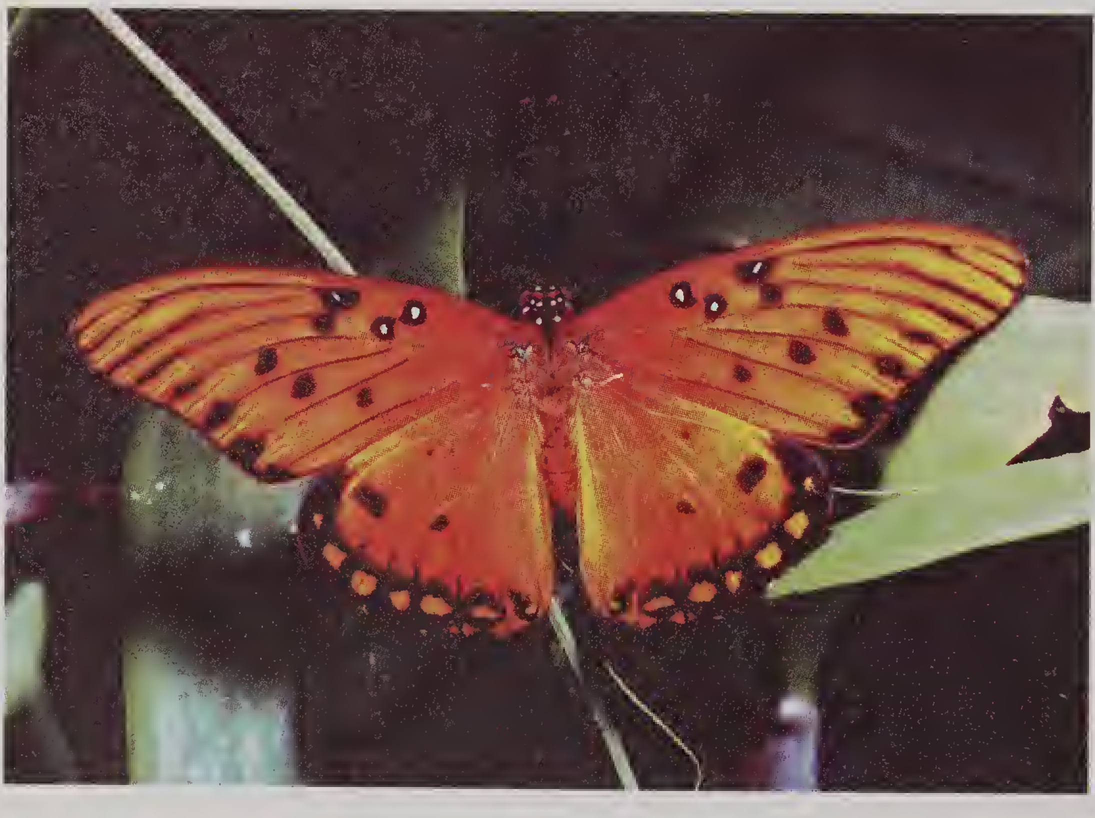
Similar Species: The long, narrow wings at once distinguish the Gulf Fritillary from any of the large fritillaries of the genus *Speyeria*, which also have silver spots, but with a different pattern.

Habitat: An insect of open areas, roadsides, pastures, parks, gardens.

Natural History: Multivoltine, active all year in the southern states, Antilles, Central and South America. The species strays to the north in summer, sometimes reaching Illinois, where it rarely breeds. Larvae feed on passion vines (*Passiflora* spp.) and may on rare occasions be found in southern Illinois. Adults are avid flower visitors. They have a slow, easy flight when not disturbed, but can fly rapidly if alarmed.

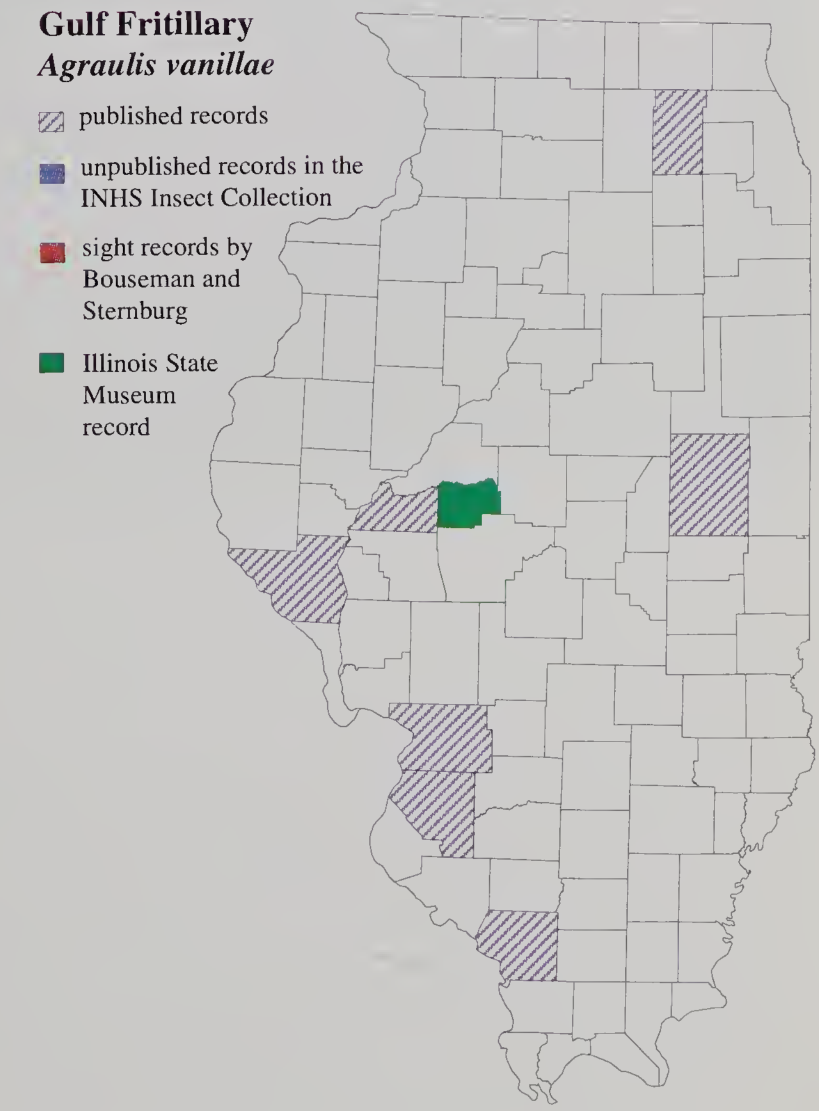
Status: A stray from the south into Illinois where it rarely breeds.

Remarks: Long considered a member of the subfamily Nymphalinae, then transferred to the Heliconiinae. More recently the members of the nymphaline tribe Argynini, which includes the Variegated Fritillary and the genera *Speyeria* and *Boloria*, have been moved from the Nymphalinae to the Heliconiinae.



Male, Gulf Fritillary from culture.

Male, Gulf Fritillary from culture.

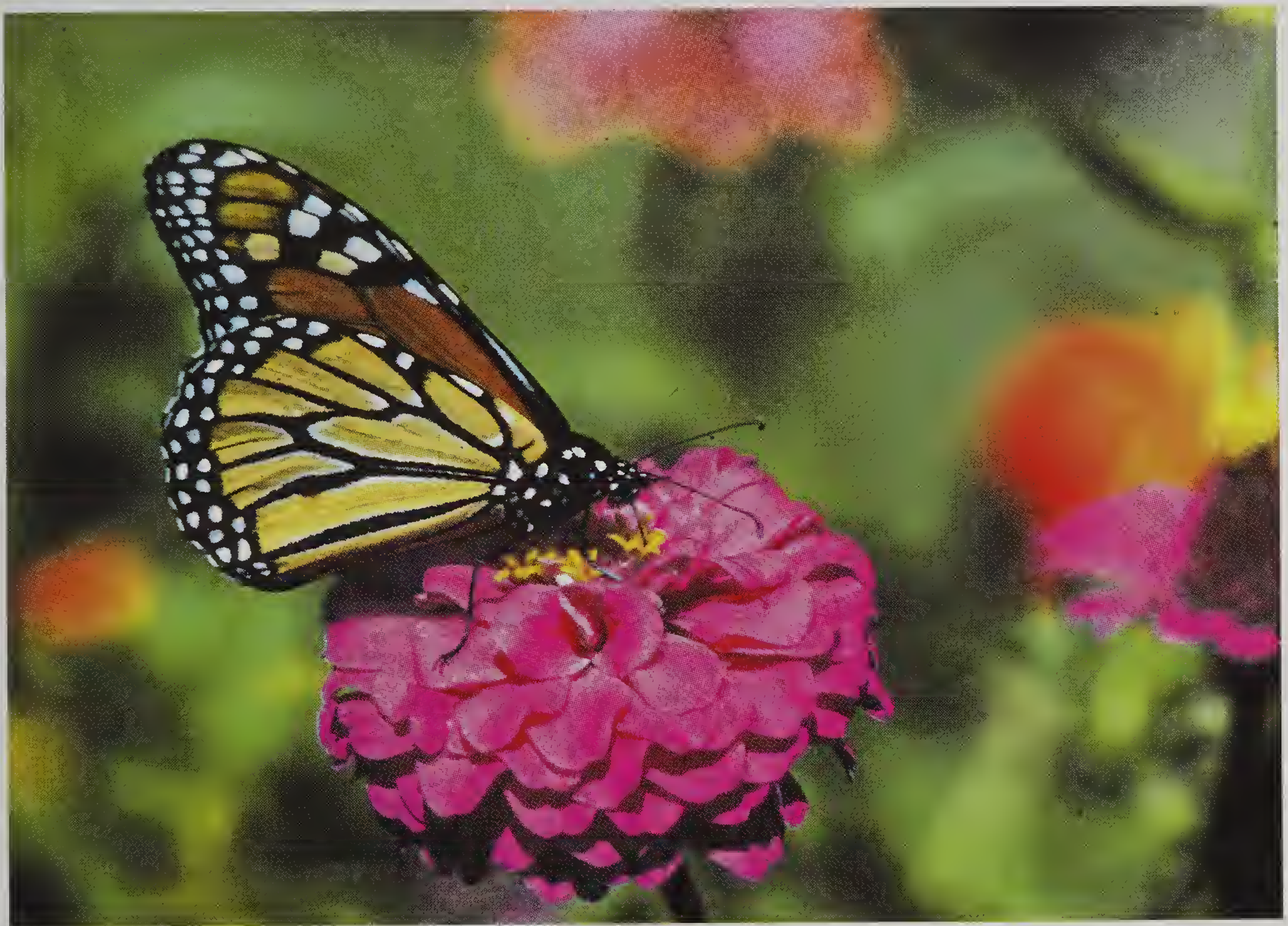


Gulf Fritillary
Agraulis vanillae

▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg
🟩 Illinois State Museum record

Subfamily Danainae: Monarch, Queen

The Monarch is our only regular danaid inhabitant, and then only in the warm months. On rare occasions, the related Queen reaches Illinois, apparently from the Southwest where the subspecies *Danaus gilippus strigosus* occurs. Adults of milkweed butterflies visit a wide variety of flowers for nectar. They will also take moisture and nourishment at wet and damp sites. Larvae feed on milkweeds and rarely on dogbane. The larvae are brightly colored, and no doubt aposematic, advertising their noxious properties. The body is smooth with a pair of anterior fleshy filaments and another pair on the posterior part of the abdomen.



Male, Monarch nectaring, Champaign County, IL.

Monarch

Nymphalidae, Danainae

Danaus plexippus (Linnaeus)

The Monarch is familiar to more people than any other of our Illinois butterflies. It is conspicuous, easily approached, and found everywhere except within dense forests. It is commonly seen in densely urban surroundings. The long migrations are a source of wonder. It is the State Insect of Illinois. Monarchs of North America have a fixed migratory flight, unlike that of any other butterfly, where migrations are more casual and often erratic in nature. In addition, the Monarch now occurs on many Pacific islands, in Formosa, in Australia, in the Canary Islands as a permanent resident, and is seen even as a rare vagrant in Europe.

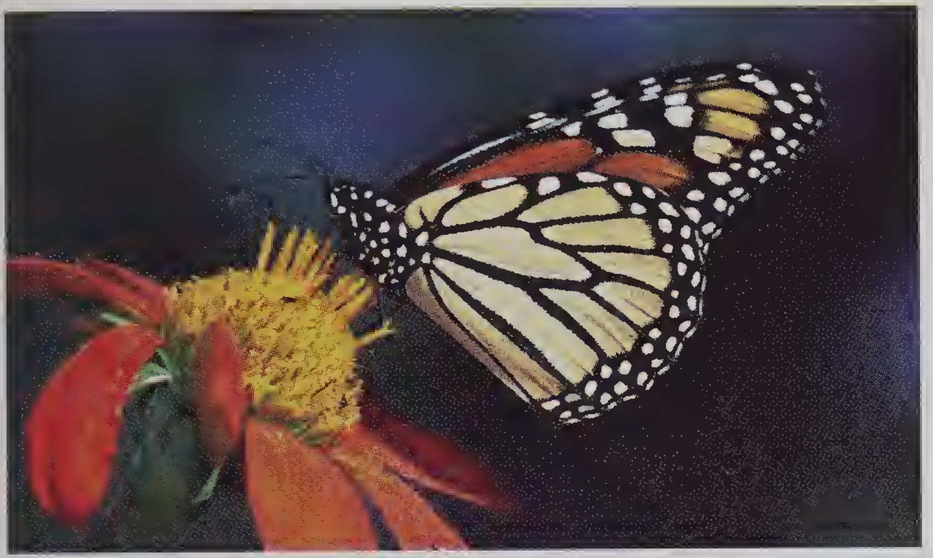
Description: Wingspan 3.3–4.8 in. Pattern of sexes similar. The wings on the upperside are orange with black scales along the veins. Males are bright orange, females brownish orange. Males have a round androconial scent patch in the center of each hindwing. A black border with a double row of white spots is present on the upperside and underside of the forewings and hindwings. On the underside, the forewing is orange, the hindwing tan. The apex of the forewing bears several tan-and-white spots.

Similar Species: The Viceroy, which mimics the Monarch, is readily recognized by the transverse postmedian black line across the hindwings. There is a single row of white spots in the black margins. Viceroys are smaller than Monarchs.

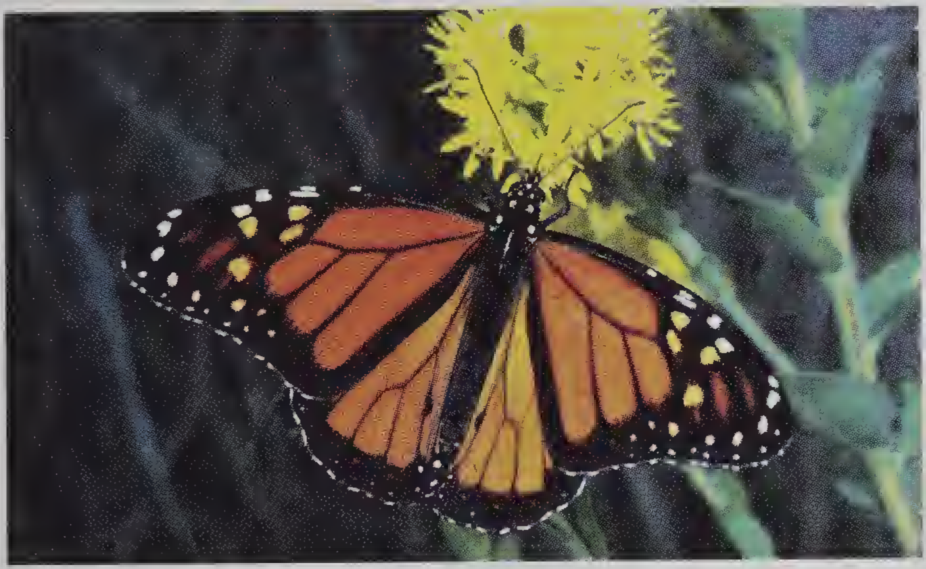
Habitat: In Illinois, Monarchs are summer breeding residents, often with three broods. The last is migratory, in reproductive diapause, and from mid-September into October Monarchs can be seen moving south, often stopping at flowers to take nectar as a source of energy for the long flight to overwintering sites. The latter are primarily in Mexico at high altitudes, where Monarchs gather by the millions. Lesser numbers overwinter in Florida and along the Gulf coasts. In the spring there is a return flight and mating. As the females move north they oviposit on the larval hosts, mostly milkweeds. Worn migrants reach Illinois in April. The next several generations are nonmigratory, until the generation that becomes adult in September.

Status: Common statewide.

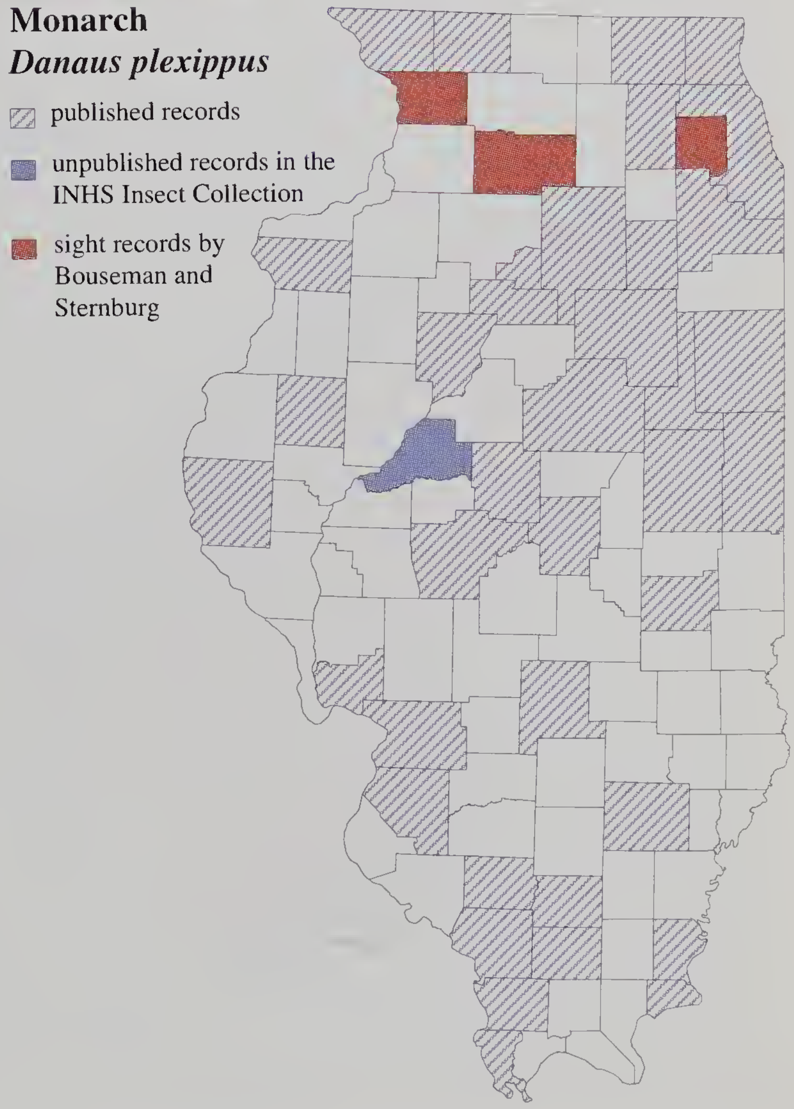
Remarks: In Central and South America and on islands of the Caribbean, there are resident populations of Monarchs that are not migratory. They are classified as subspecies. They can be recognized by the shorter, broader forewings with only white apical spots. Monarchs found in Illinois rarely resemble these nonmigratory southern subspecies. These should be regarded as variants of the migratory subspecies (*D.p. plexippus*) and not as vagrants of one of the nonmigratory populations.



Female, Monarch, Champaign County, IL.



Male, Monarch, Champaign County, IL.


Monarch
Danaus plexippus
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Queen — Nymphalidae, Danainae

Danaus gilippus strigosus (Bates)

Description: Wingspan 3.0–3.8 in. Sexes similar, except females do not have androconial sex patch on hindwing. Chestnut-brown with dark borders. Two rows of marginal white spots. The wing veins are not black. Some veins of hindwing dusted with white.

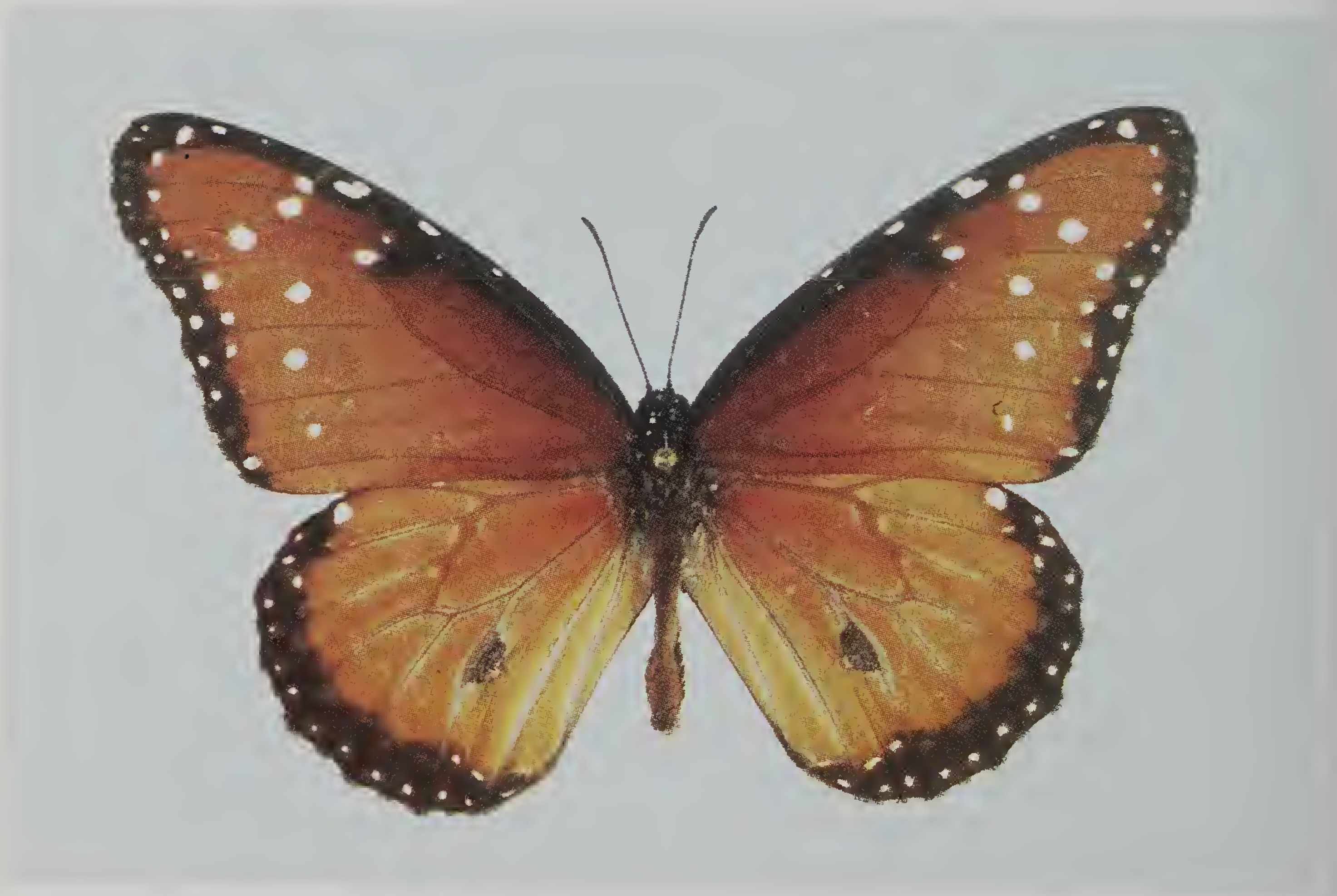
Similar Species: The Monarch is larger and brighter orange.

Habitat: Open areas, fields, parks.

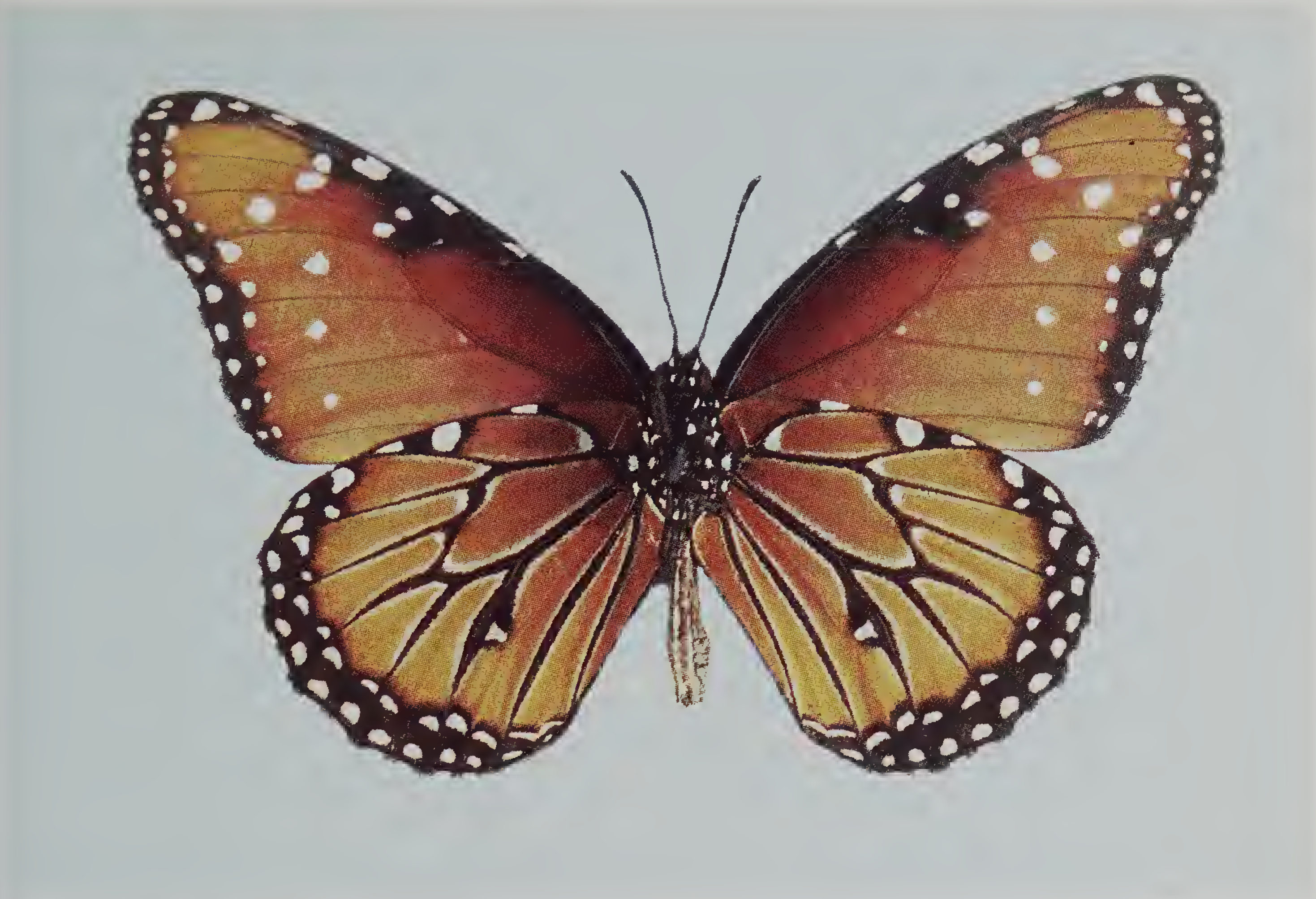
Natural History: Our occasional Queens are apparently wandering vagrants from the Southwest or Texas. In their native range the larvae feed on milkweeds. It is unlikely that any breed in Illinois.

Status: A rare vagrant.

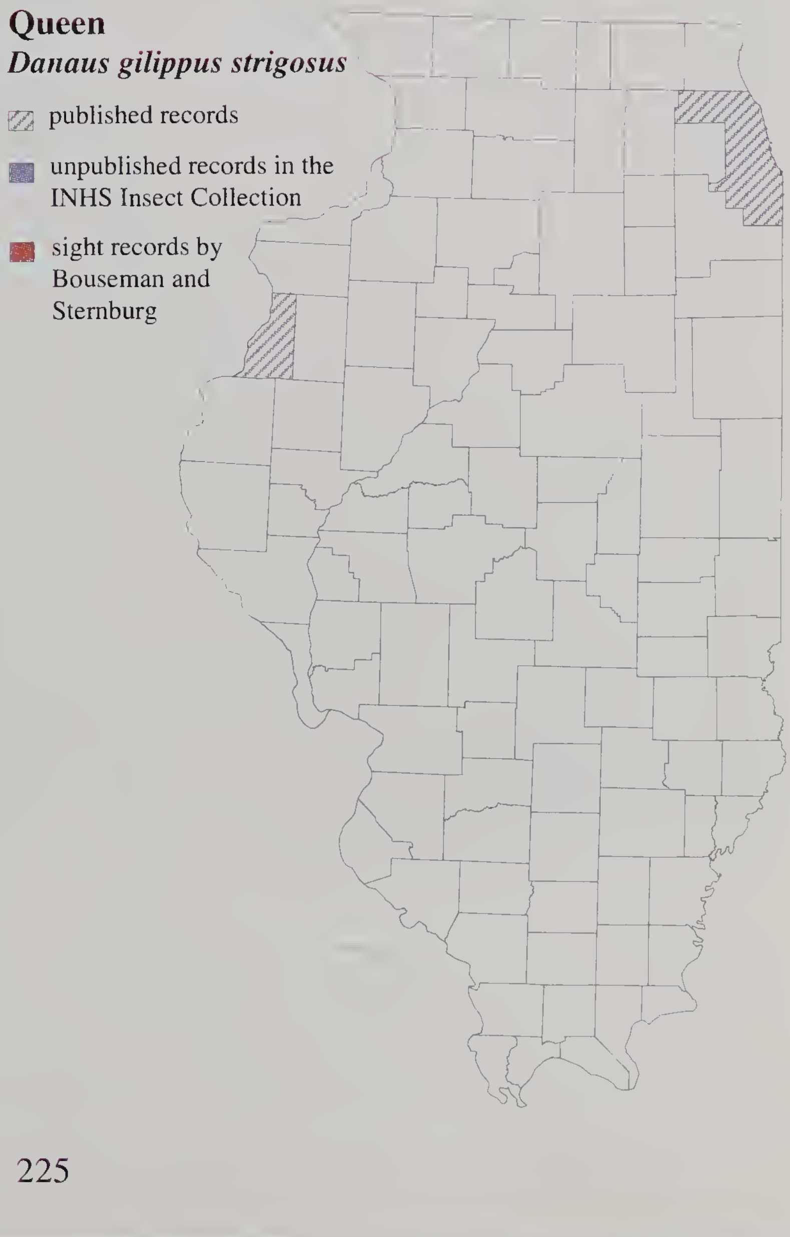
Remarks: The Florida Queen (*D.g. berenice*) is browner than the Monarch. Irwin and Downey found no records of this subspecies from Illinois.



Male, Queen, upperside, Guatemala.



Male, Queen, underside, Guatemala.

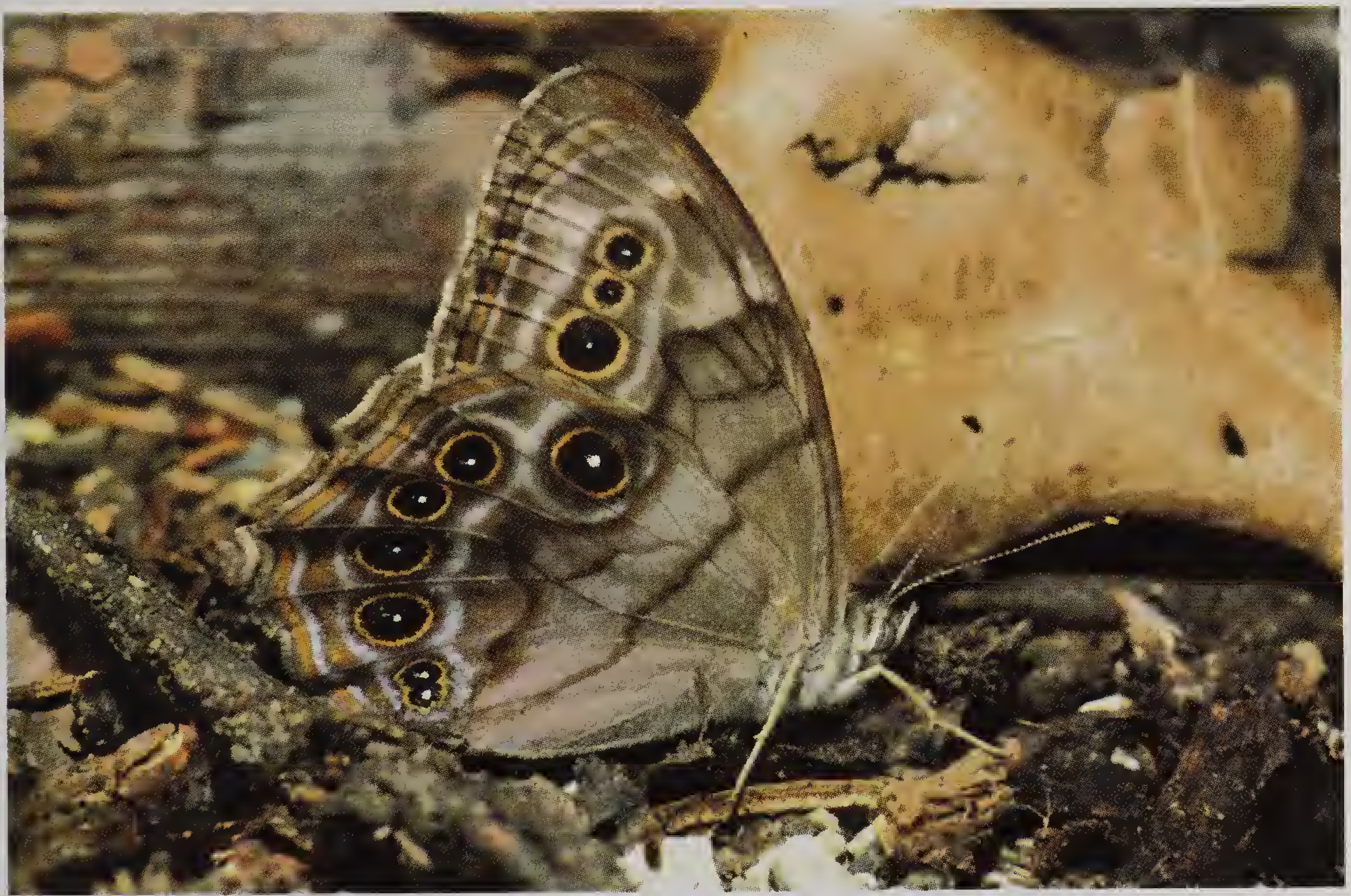

Queen
Danaus gilippus strigosus
▨ published records
🟪 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Subfamily Satyrinae

The satyrs, also called nymphs, are small- to medium-sized butterflies. Most have the wings adorned with eyespots. Adults of most species do not visit flowers, but are believed to obtain nourishment from honeydew and from bird droppings. An exception is the Common Wood Nymph, which does visit some flowers. Adult satyrs have a bouncing flight, which allows them to fly through brushy areas without difficulty. All are deceptively hard to capture because of this. Larval hosts are various grasses and sedges. The larvae are smooth bodied, with the head bearing a pair of spines directed forward.

Genus *Enodia*: Pearly-eyes

The genus *Enodia* consists of three species of medium-sized, obscurely colored butterflies known as Pearly-eyes. All three species are known from Illinois, and where their ranges overlap, all may be found flying together. All are forest species that fly at dawn and dusk and on overcast days in close proximity to their host plants (forest grasses and cane). The males commonly rest on tree trunks. They do not visit flowers; rather, they take nourishment from sap flows, carrion, and feces.



Northern Pearly-eye perching, Wayne County, MO.

Northern Pearly-eye — Nymphalidae, Satyrinae

Enodia anthedon A.H. Clark

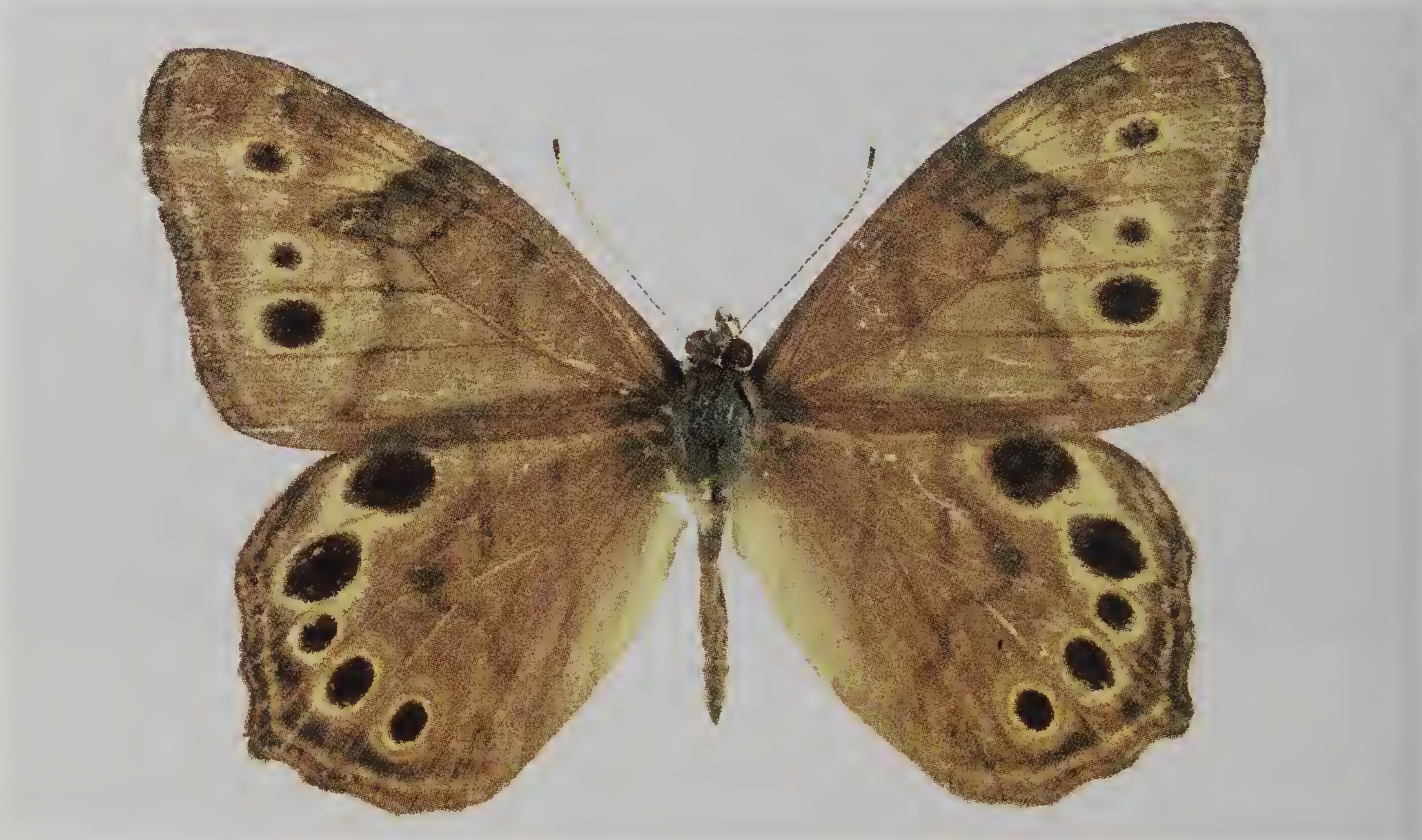
Description: Wingspan 2.2–2.8 in. Sexes similar. Markings much like those of the Southern Pearly-eye. *E. anthedon* has black antennal clubs tipped with orange. It has the four forewing eyespots in a straight line, or nearly so. It usually has less white on the underside than *E. portlandia*.

Similar Species: *E. portlandia* and *E. creola*. Refer to those for details.

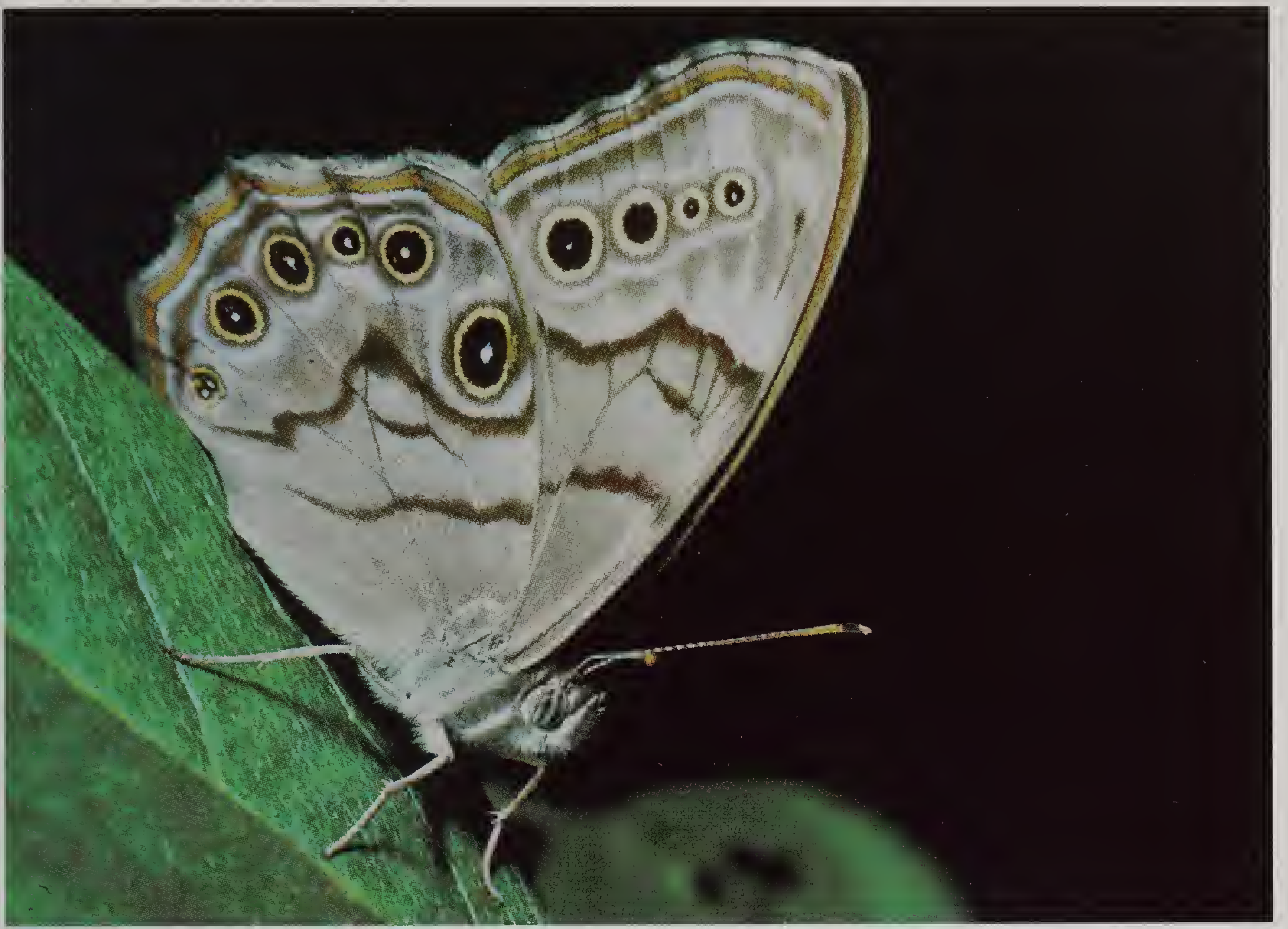
Habitat: Damp woods, usually near streams or marshes.

Natural History: Bivoltine, with adults in June and August. Larvae feed on grasses including plumegrasses (*Erianthus* spp.), broadleaf uniola (*Uniola latifolia*), bottlebrush (*Hystrix patula*), and other forest grasses. Partially grown larvae overwinter. Adults are most active at daybreak and again in the early evening. Males perch on tree trunks, waiting for females. They can be quite territorial, darting out at other passing insects. They are very tolerant of shade. They feed on ripe or fermenting fruit, sap flows, carrion, and animal feces. Flowers are not visited.

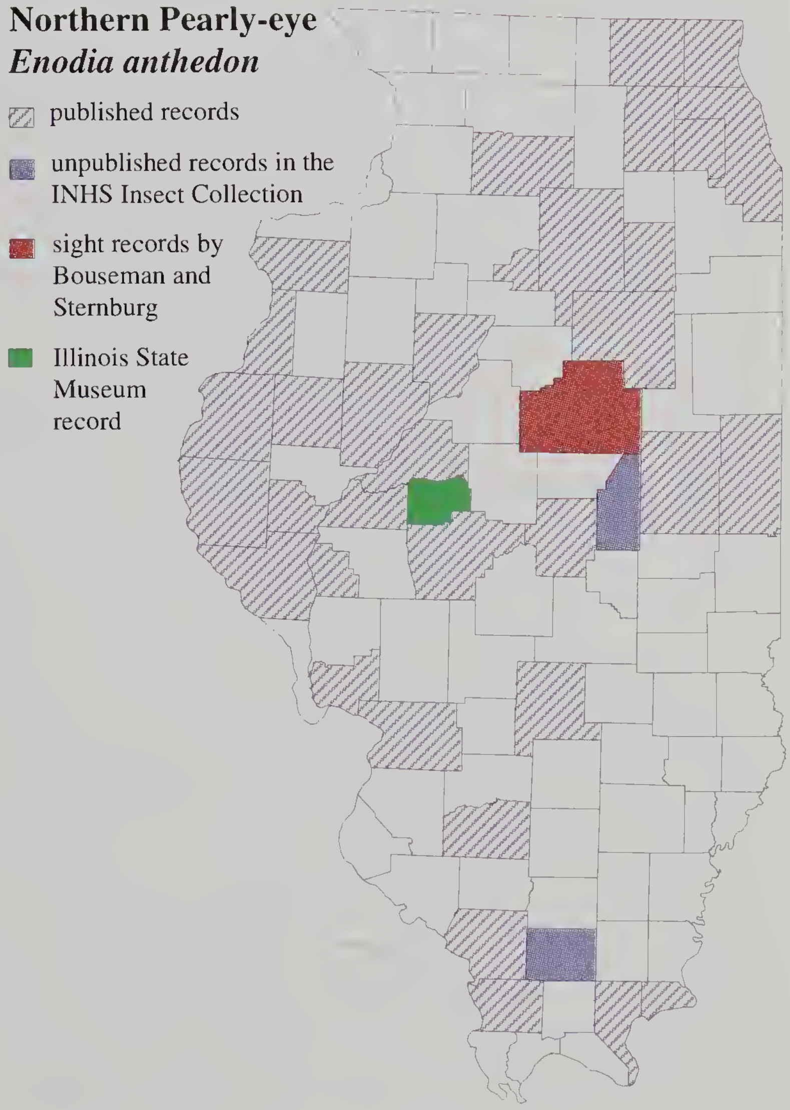
Status: Statewide, but local. Occurs in disjunct local populations. Can be common in favorable habitats, or uncommon to scarce.



Male, Northern Pearly-eye, upperside, Piatt County, IL.



Northern Pearly-eye, Piatt County, IL.


Northern Pearly-eye
Enodia anthedon
▨ published records
🟪 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg
🟩 Illinois State Museum record

Southern Pearly-eye

Nymphalidae, Satyrinae

Enodia portlandia (Fabricius)

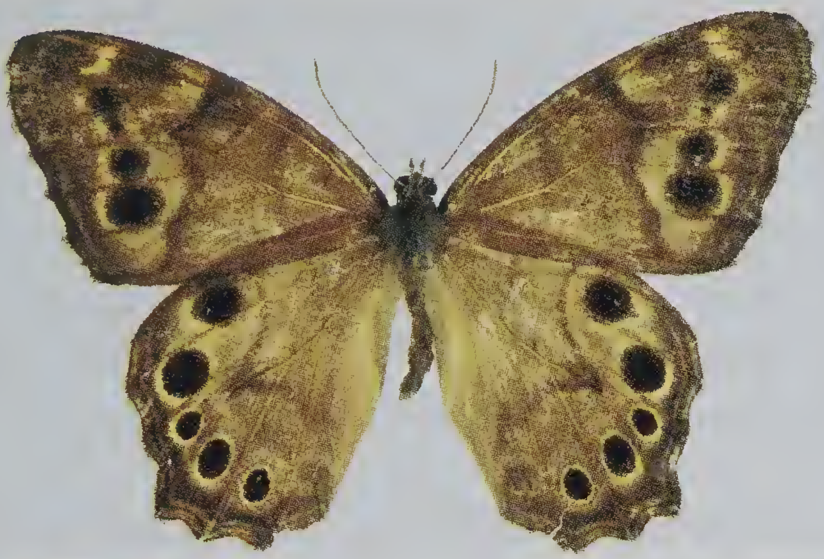
Description: Wingspan 2.25–2.75 in. Sexes similar. Key characters are the orange antennal clubs and the outwardly curved submarginal row of four forewing eyespots. The eyespots on the underside of the hindwing tend to be enclosed by white.

Similar Species: The Northern Pearly-eye has black antennal clubs with orange tips, and the four forewing eyespots are in a straight line (or nearly so). The Creole Pearly-eye has five forewing eyespots. Its antennal clubs are black with orange tips. Male Creole Pearly-eyes have elongate forewings with androconial patches.

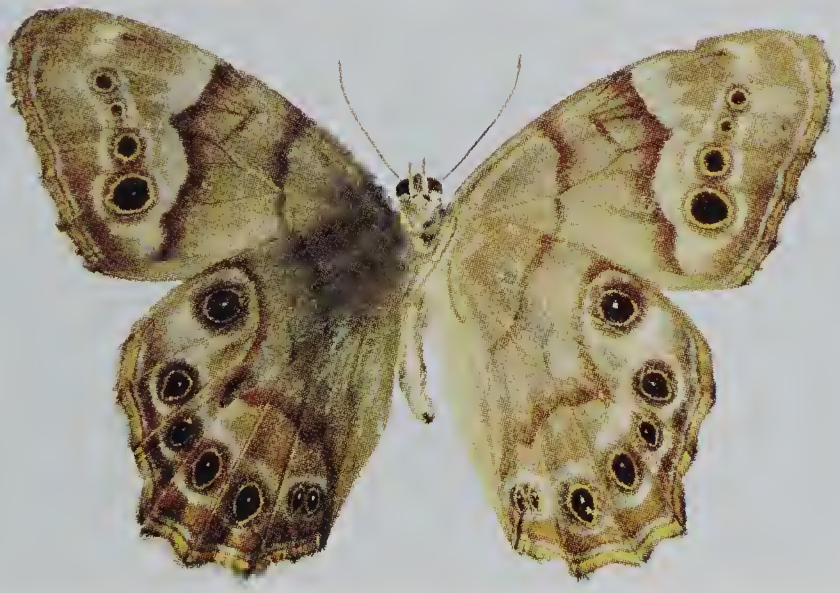
Habitat: Canebrakes.

Natural History: Multivoltine over most of its range. More data are needed to determine the number of broods in Illinois. Larvae feed on giant cane (*Arundinaria gigantea*). Partially grown larvae are believed to be the overwintering stage. Adults rarely visit flowers; instead, they feed at sap flows, and on fermenting fruit, animal feces, and carrion. They often visit damp ground for liquids and salts. The species does not wander far from the stands of cane. Males perch on cane or tree trunks, anticipating passing females. Courtship takes place in early evening or at dusk. Both sexes are most active just after dawn and again in the evening. They do fly on occasion during the day, especially on cloudy days, or if disturbed. The females are more apt to wander from the cane, presumably in search of other stands of cane for oviposition.

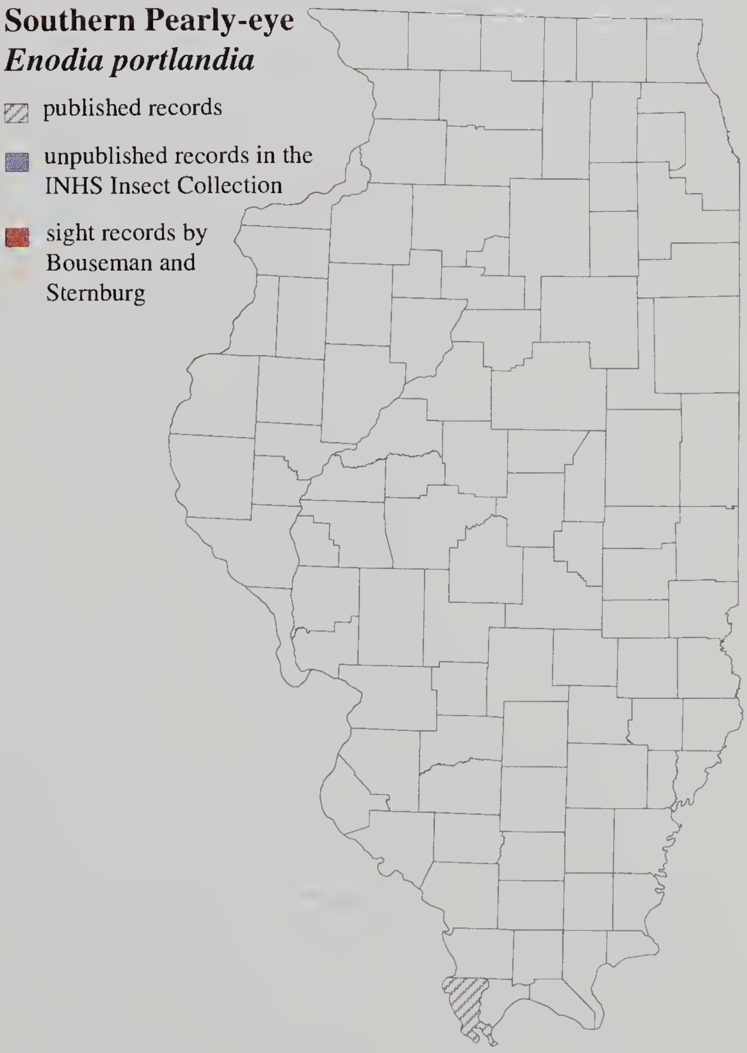
Status: In Illinois known only from Alexander County, where one of us (J.K.B.) found it for the first time in Illinois in 1992. It is very local, restricted to dense woods near giant cane.



Male, Southern Pearly-eye, upperside, Alexander County, IL.



Male, Southern Pearly-eye, underside, Alexander County, IL.


Southern Pearly-eye
Enodia portlandia
▨ published records
■ unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Creole Pearly-eye — Nymphalidae, Satyrinae

Enodia creola (Skinner)

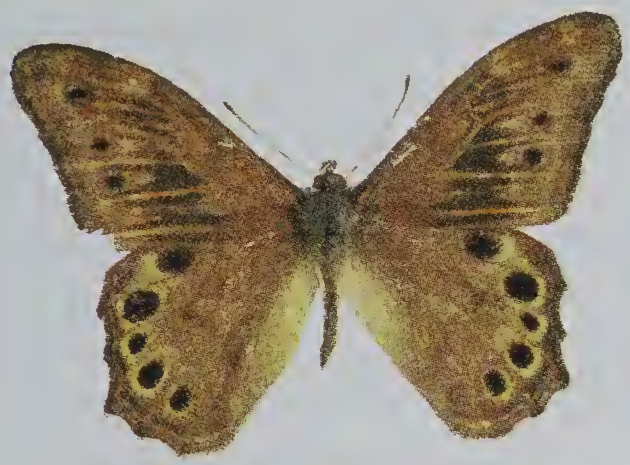
Description: Wingspan 2.25–2.75 in. Sexes dimorphic. Males have the forewings elongate and bearing raised androconial scales in patches. The forewings of females are more rounded and without androconia. In general, other markings of the sexes are similar. *E. creola* has black antennal clubs with orange tips. There are five submarginal eyespots on each forewing.

Similar Species: *E. anthedon* has only four eyespots on the forewing. *E. portlandia* also has four eyespots and has orange antennal clubs.

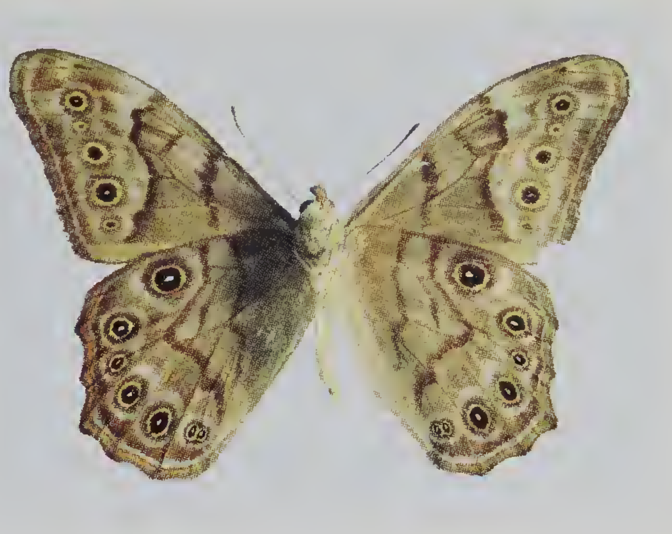
Habitat: Restricted to stands of giant cane (*Arundinaria gigantea*) in or near dense woods.

Natural History: Bivoltine. Overwinters as partially grown larvae. Larvae in Illinois feed only on *Arundinaria gigantea*. Adults are most active just after dawn and again in the early evening. Like other *Enodia*, males are territorial and perch to wait for females. The species is secretive and often rests at great heights. They will come to moist soil to take moisture and feed at sap flows and on ripe fruit, dung, and sometimes carrion.

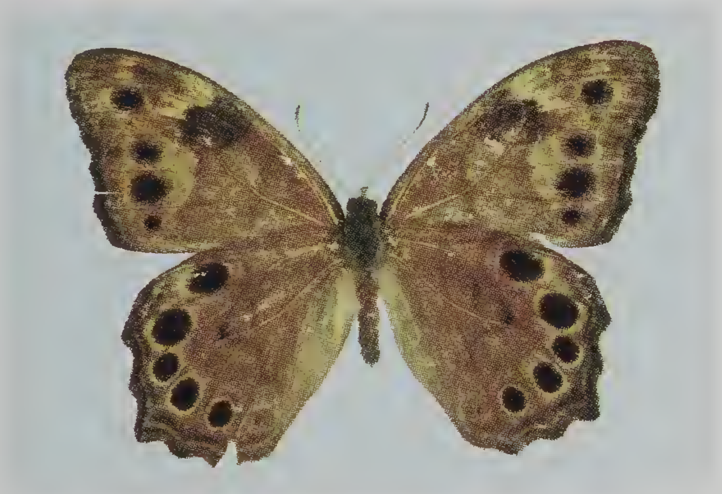
Status: Very local in southern Illinois, known from eight counties. Scarce, uncommon.



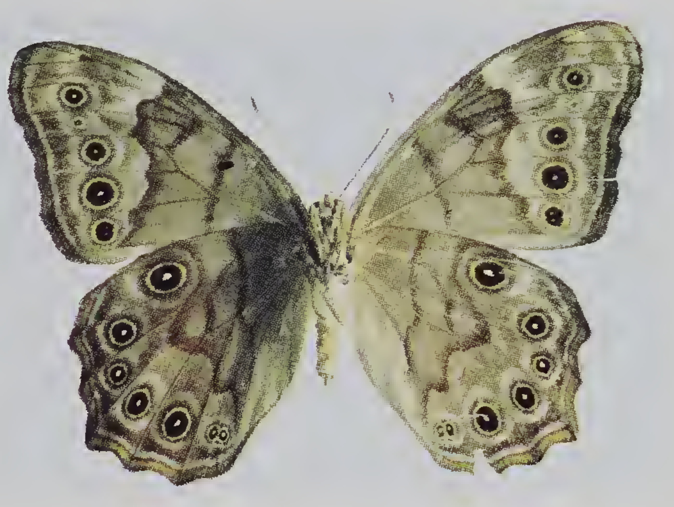
Male, Creole Pearly-eye, upperside, Jackson County, IL.



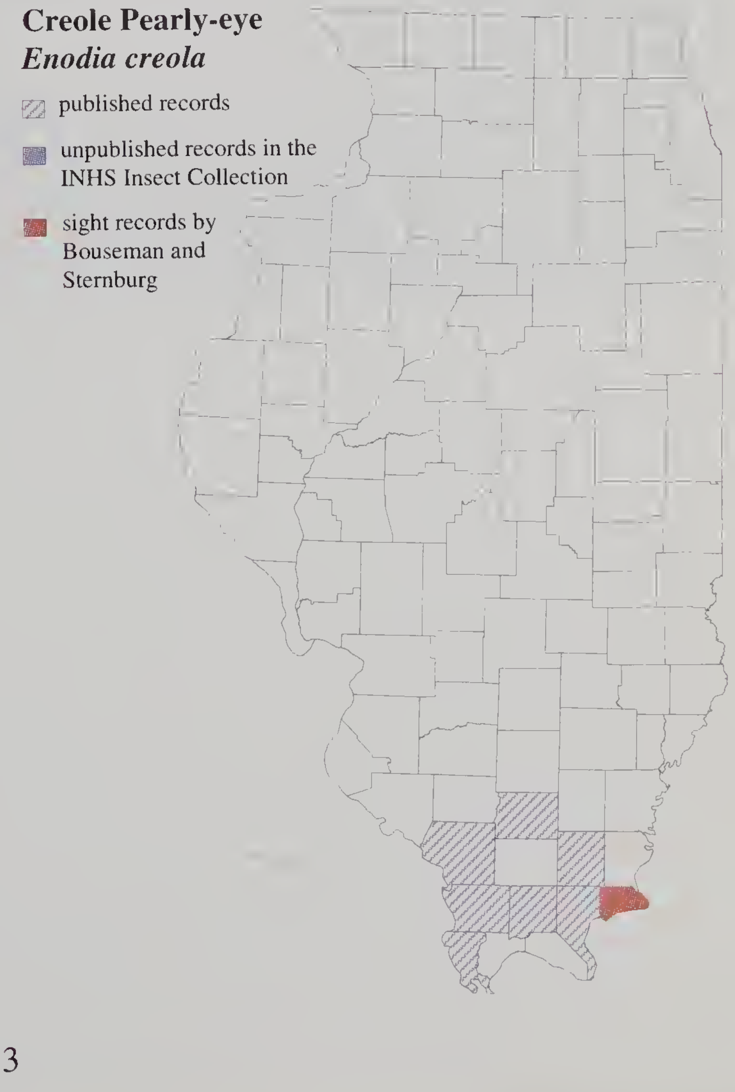
Male, Creole Pearly-eye, underside, Jackson County, IL.



Female, Creole Pearly-eye, upperside, Jackson County, IL.



Female, Creole Pearly-eye, underside, Jackson County, IL.

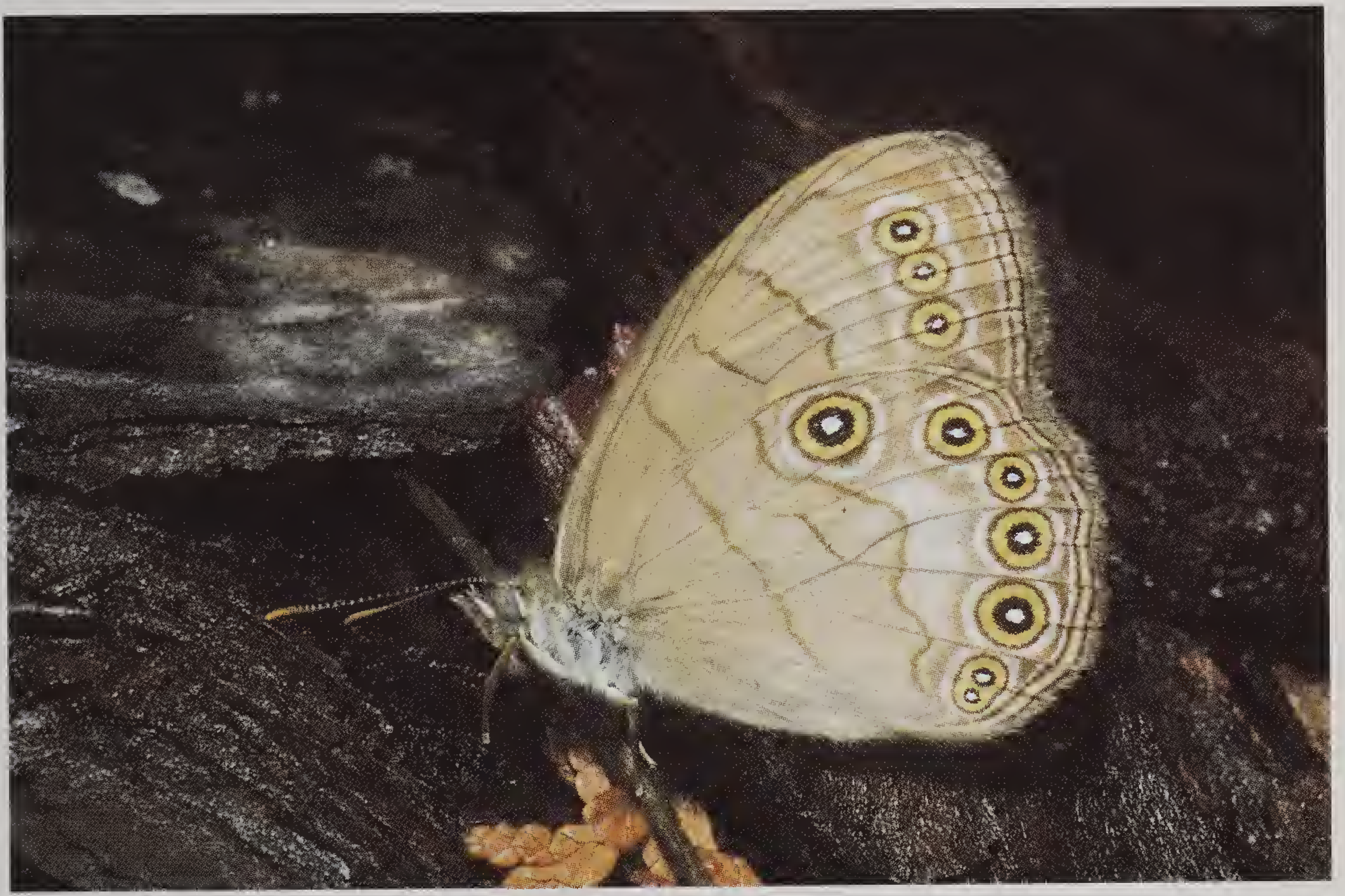


Creole Pearly-eye
Enodia creola

▨ published records
▨ unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Genus *Satyrodes*: Eyed Browns

The genus *Satyrodes* consists of two species of medium-sized, dully colored butterflies known as Eyed Browns. Both species occur in Illinois. Eyed Browns are restricted to very narrow habitats in their flight activities and are found only in close proximity to their larval hosts (sedges). The authors know of a site in Iroquois County where the two species fly within a few feet of one another (*S. eurydice* in an open marsh and *S. appalachia* in a wooded swamp), but do not comingle. The Eyed Browns rarely visit flowers. They take their nourishment from sap flows and feces.



Appalachian Brown resting, Iroquois County, IL.

Eyed Brown — Nymphalidae, Satyrinae

Satyrodes eurydice (Johansson)

Description: Wingspan 1.75–2.6 in. Sexes similar although females are on average much lighter brown than the males. On the underside, there are submarginal eyespots on both wings. Those of the forewing are about of equal size. Four eyespots are found in *S.e. eurydice*. In the subspecies *S. e. fumosa* there are five. (Note: In extensive collecting in northern Illinois we have found no populations that resemble *fumosa*, although Illinois is listed within its range by some authors.) *S. eurydice* has the postmedian line of the hindwing as an exaggerated zigzag.

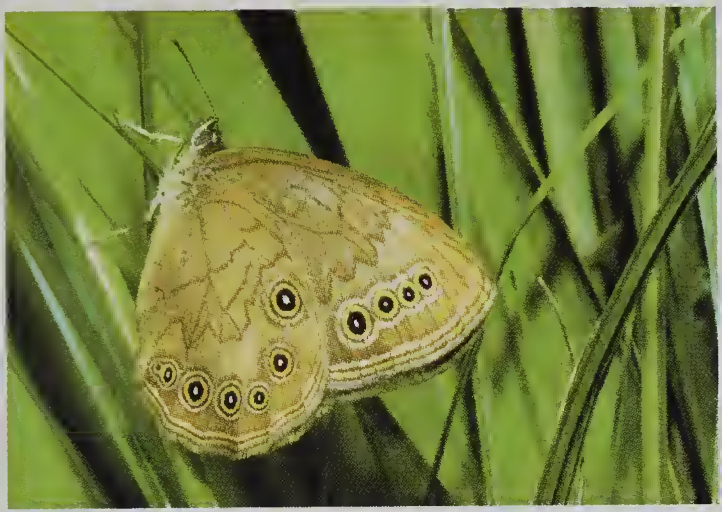
Similar Species: The Appalachian Brown has the postmedian line sinuous, not in a zigzag.

Habitat: Open, sunny sedge meadows and wet ditches or riversides where sedges (*Carex* spp.) grow.

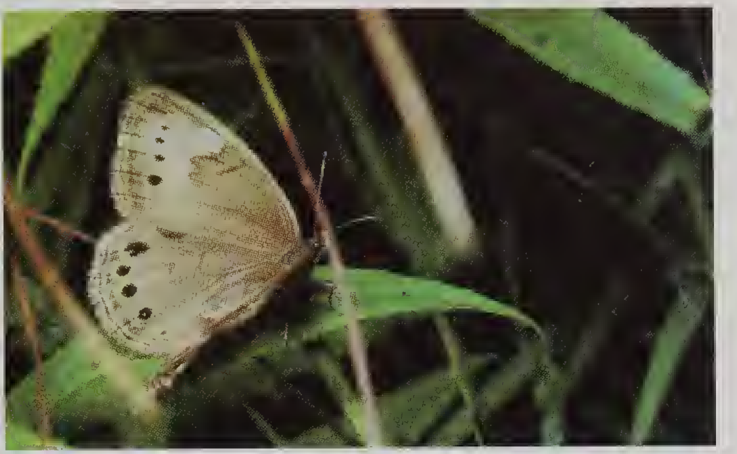
Natural History: Univoltine or sometimes bivoltine, with a long flight period. Partially grown larvae overwinter. The larvae feed on various species of sedges in the genus *Carex*. Adults feed occasionally on nectar (J.K.B. has observed the Eyed Brown nectaring on common milkweed [*Aselepias syriaca*] in Lee County), but more often on sap or bird droppings. The species is a weak flier but is quite capable of some artful dodging of the collector's net. They often settle and bask with wings open. Males patrol to find females.

Status: Local in the northern part of the state. Populations are now very disjunct because of the draining of most of the area for agriculture. It can be locally common, but more often uncommon where found.

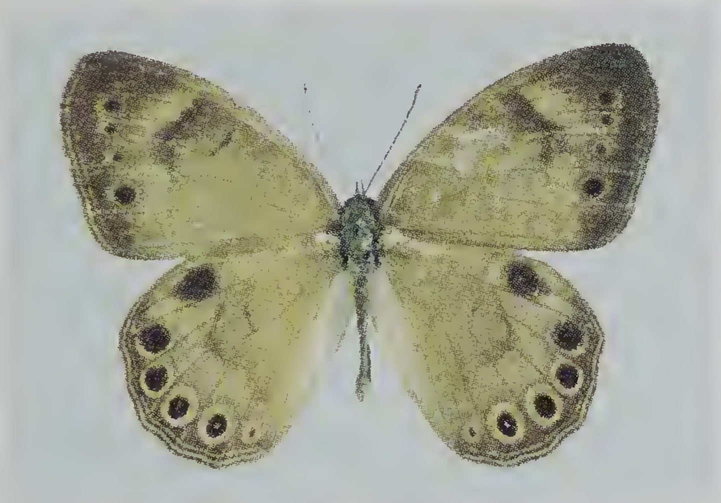
Remarks: In searching for local populations and studying their emergence patterns, we found one population in Iroquois County that was only in flight during August, suggesting a second brood in timing, but no first brood in June or July was observed.



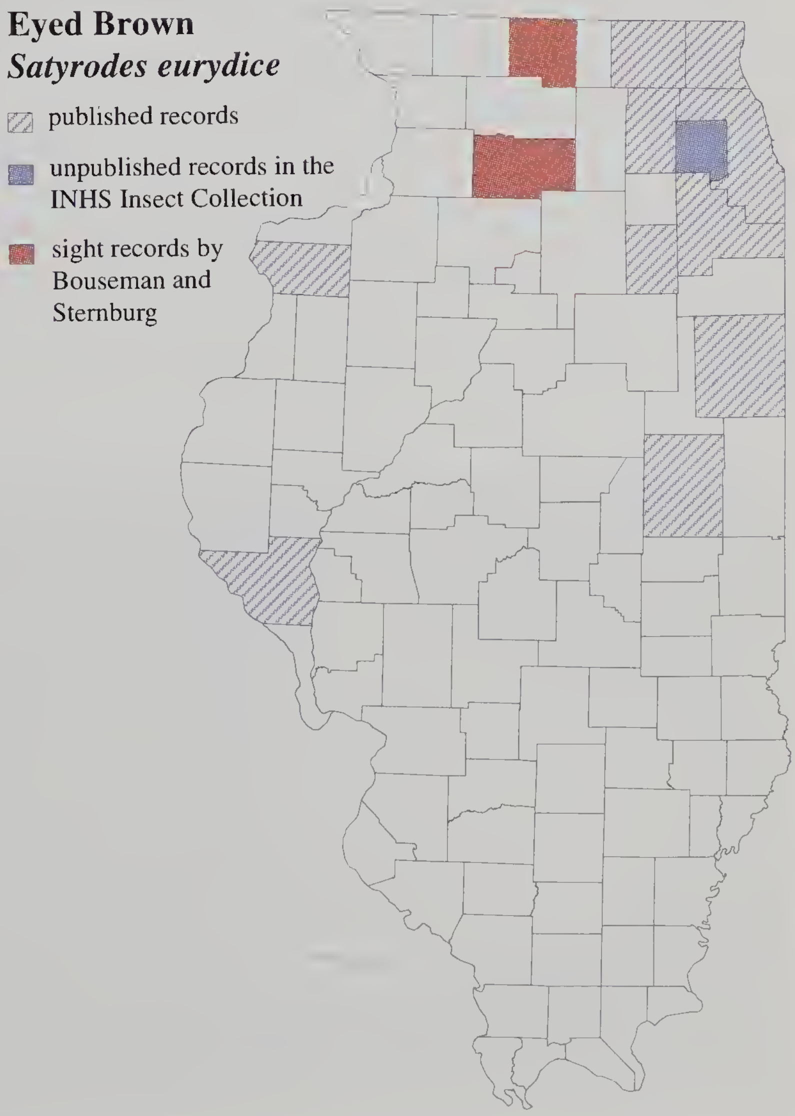
Male, Eyed Brown, Iroquois County, IL.



Male, Eyed Brown, Iroquois County, IL.



Male Eyed Brown, upperside, Iroquois County, IL.


Eyed Brown
Satyrodes eurydice
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Appalachian Brown **Nymphalidae, Satyrinae**

Satyrodes appalachia (R.L. Chermock)

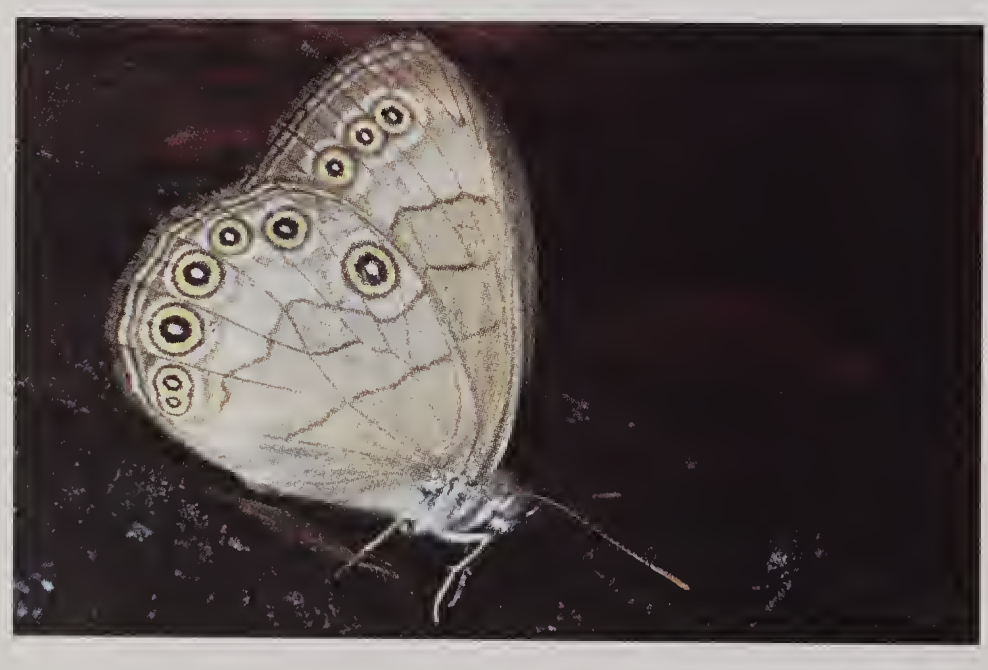
Description: Wingspan 1.8–2.25 in. Sexes similar. Best recognized by the sinuous postmedian line of the underside of the hindwing. On the underside of the forewing, the posterior submarginal eyespot is the largest. Eyespots are encircled by white.

Similar Species: *S. eurydice* has the postmedian line of the hindwing a pronounced zigzag.

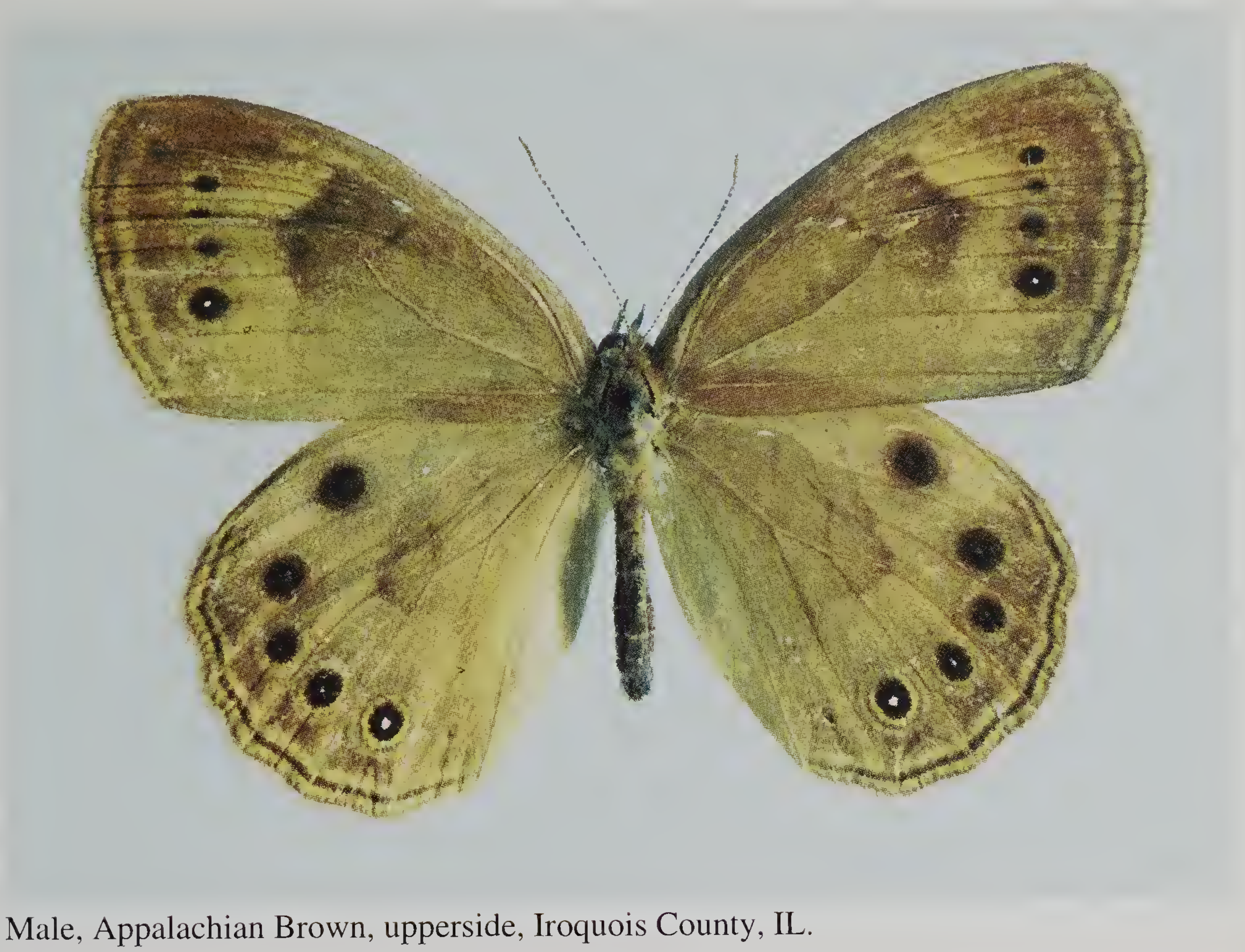
Habitat: Wet, wooded marshes and forest edges where sedges (*Carex* spp.) grow.

Natural History: Northern populations univoltine. In Iroquois County the species is bivoltine. The first flight is in June and July, the second in August into September. Its life history is much like that of its sibling species *S. eurydice*. It differs in its behavior, not flying far from trees or bushes. It rarely strays away from shaded or partially shaded sites. It is sometimes found in the same area as *S. eurydice*, with *S. eurydice* in open, sunny spots and *S. appalachia* in the shaded marginal adjacent sites. *S. appalachia* will favor a small, sunny, open spot in a wooded area, where it will bask. The two species cannot be told apart while in flight, except by location. Capture is usually necessary to confirm identity.

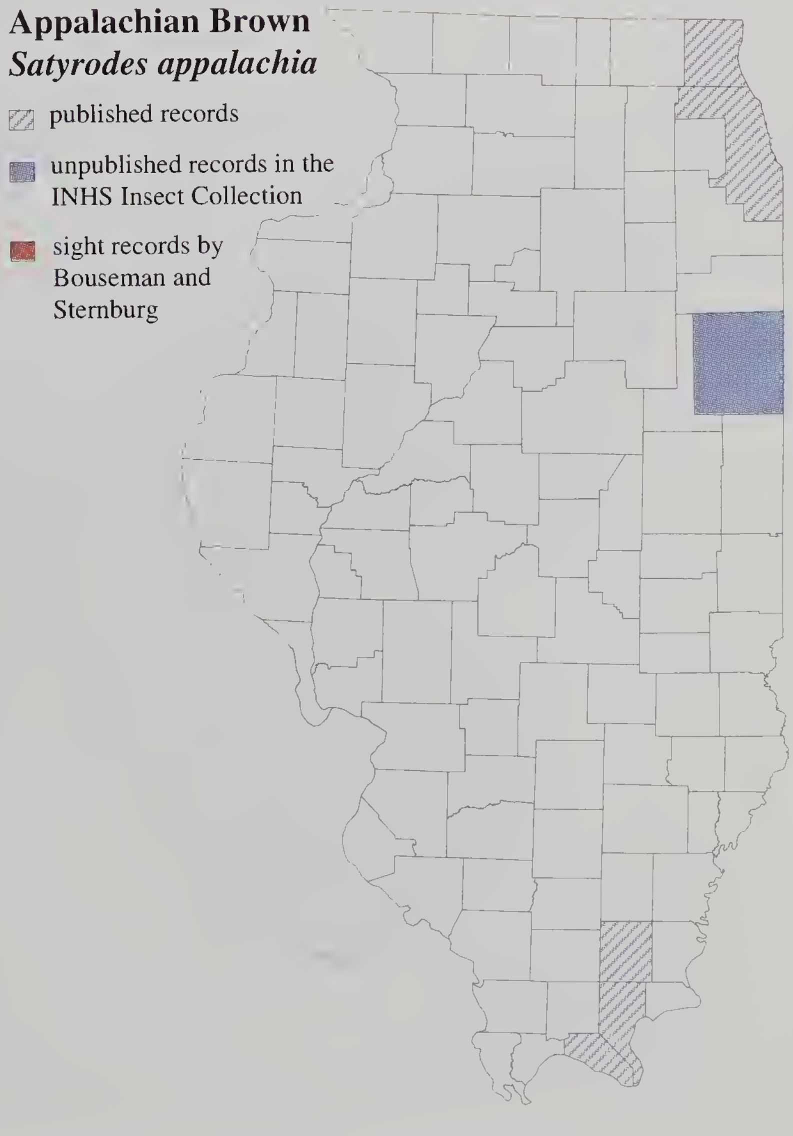
Status: There are two subspecies in Illinois. One of them (*S. a. leeuwi*) enters from the north and is restricted to the more northern counties, including Cook and Iroquois. The subspecies (*S. a. appalachia*) enters the state from the south and southwest. The Appalachian Brown is very local within its range. It may be locally common, or uncommon in some years.



Male, Appalachian Brown, Iroquois County, IL.



Male, Appalachian Brown, upperside, Iroquois County, IL.


Appalachian Brown
Satyrodes appalachia
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Gemmed Satyr **Nymphalidae, Satyrinae**

Cyllopsis gemma (Hübner)

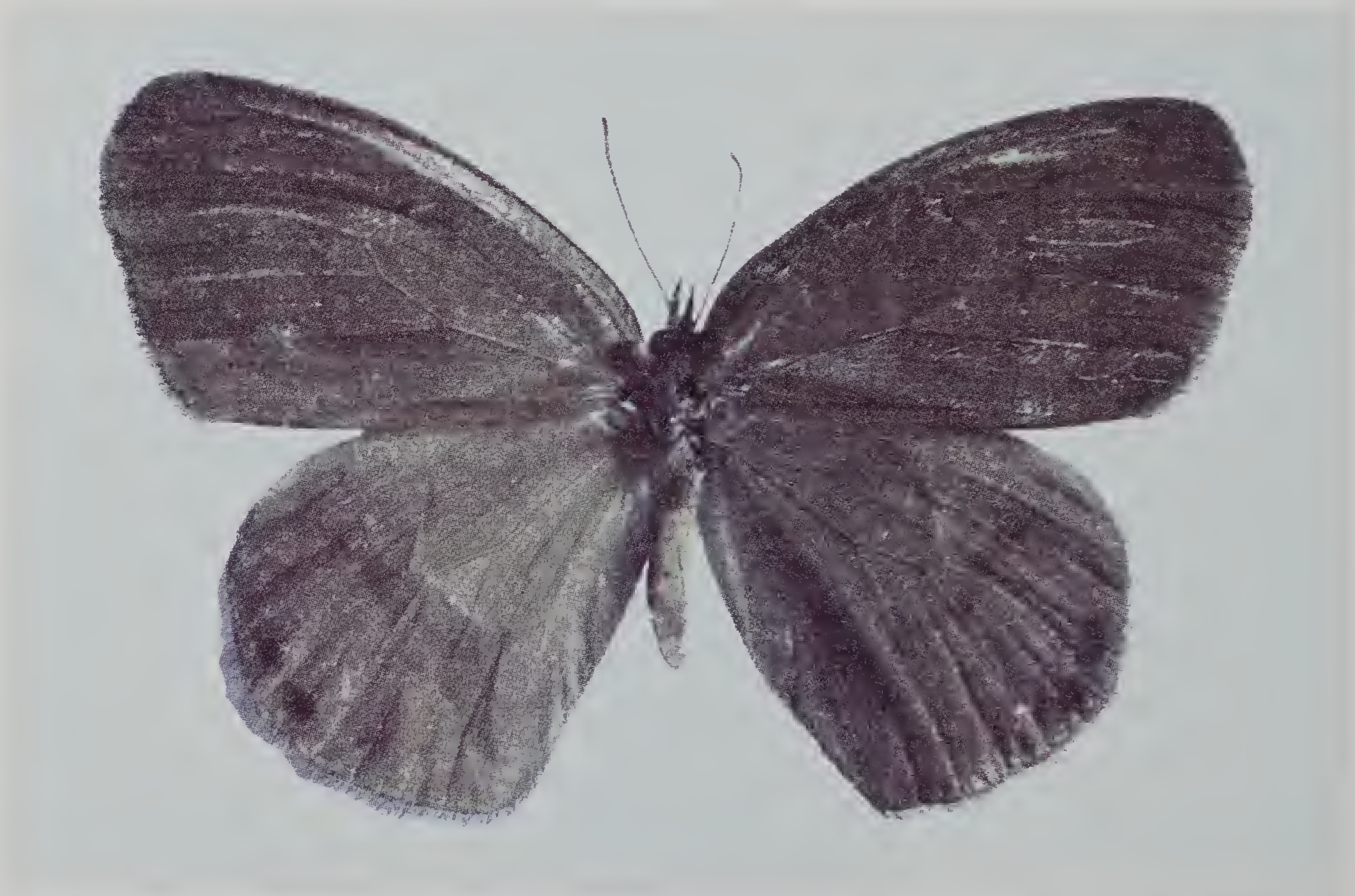
Description: Wingspan 1.4–1.8 in. Sexes similar. Light brown overall color with no eyespots. There is a silvery gray patch on the hindwing posterior margin with reflective dark spots.

Similar Species: In flight it can be mistaken for the Little Wood Satyr or the Carolina Satyr. Both have eyespots, which are lacking in the Gemmed Satyr.

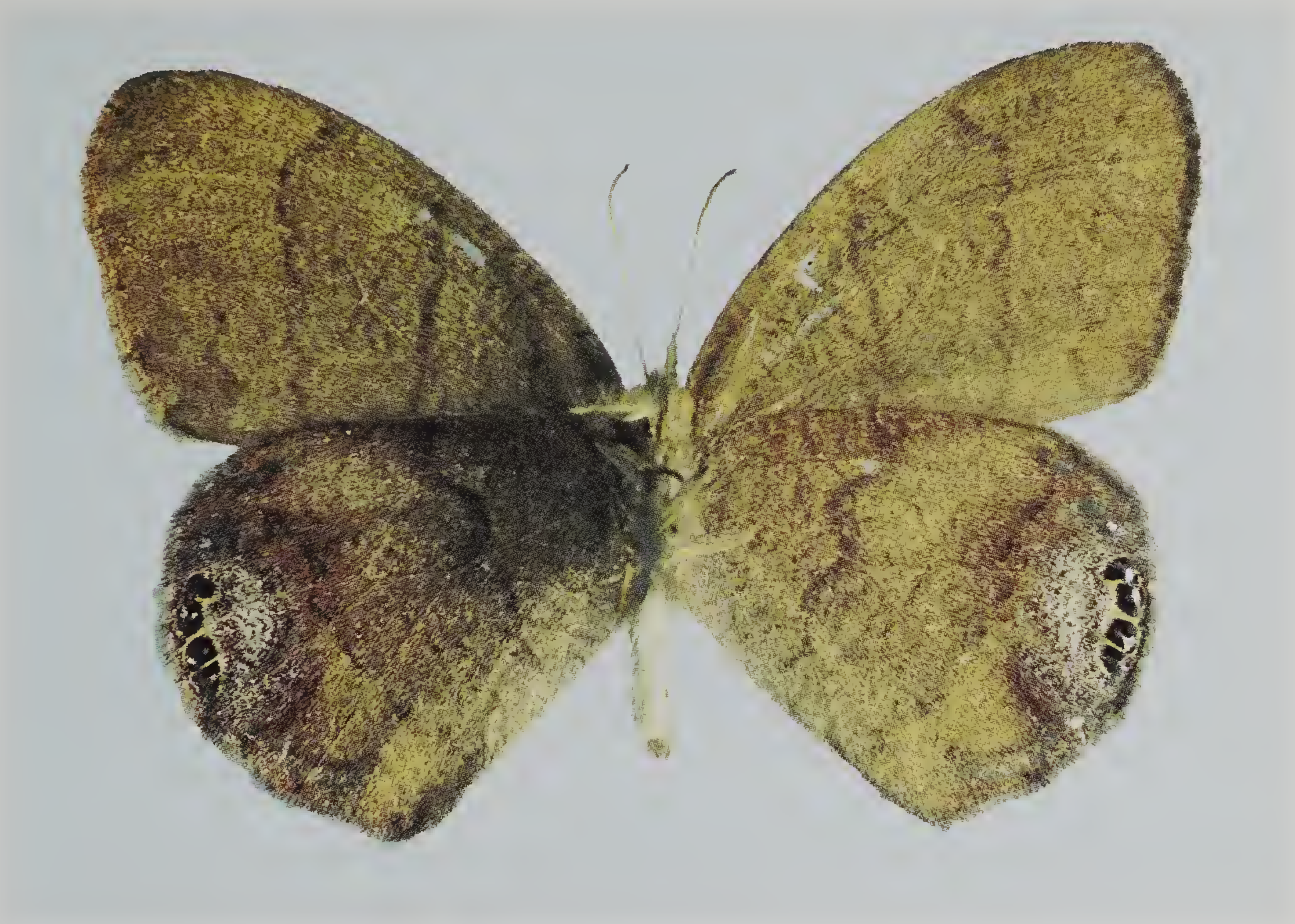
Habitat: Wooded areas, along the margins, roads, and trails. Open woods with grassy areas.

Natural History: Multivoltine, two to three broods. Larvae feed on Bermuda grass (*Cynodon dactylon*) and others. Adults rarely visit flowers; instead, ripe or rotten fruit and sap flows are visited for nourishment. Adult males patrol, searching for females. Fourth instar larvae overwinter.

Status: Uncommon and local in southern Illinois.



Male, Gemmed Satyr, upperside, Pope County, IL.



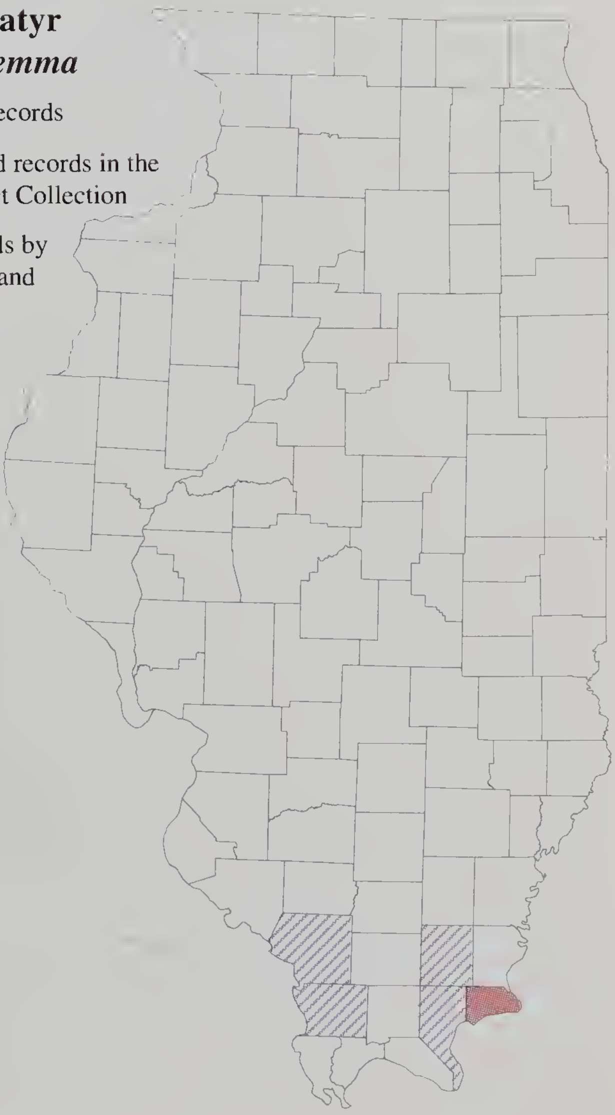
Male, Gemmed Satyr, underside, Union County, IL.

Gemmed Satyr
Cyllopsis gemma

▨ published records

🟦 unpublished records in the INHS Insect Collection

🟥 sight records by Bouseman and Sternburg



Carolina Satyr — Nymphalidae, Satyrinae

Hermeuptychia sosybius (Fabricius)

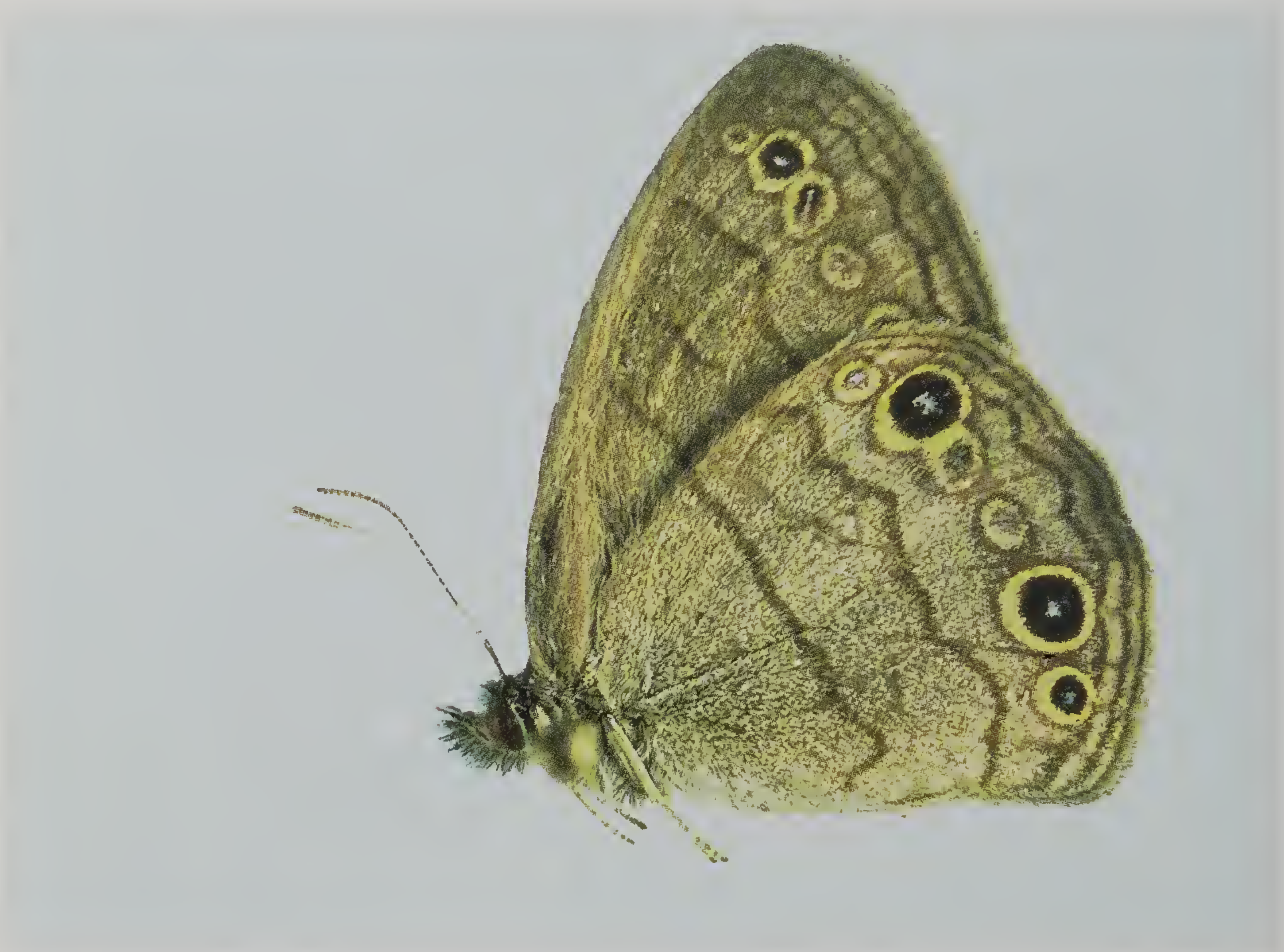
Description: Wingspan 1.25–1.5 in. Sexes similar. Upperside brown without markings. Underside has many small black yellow-bordered eyespots along the margins.

Similar Species: The Little Wood Satyr has two eyespots on each wing on the upperside. It has two eyespots below on each forewing.

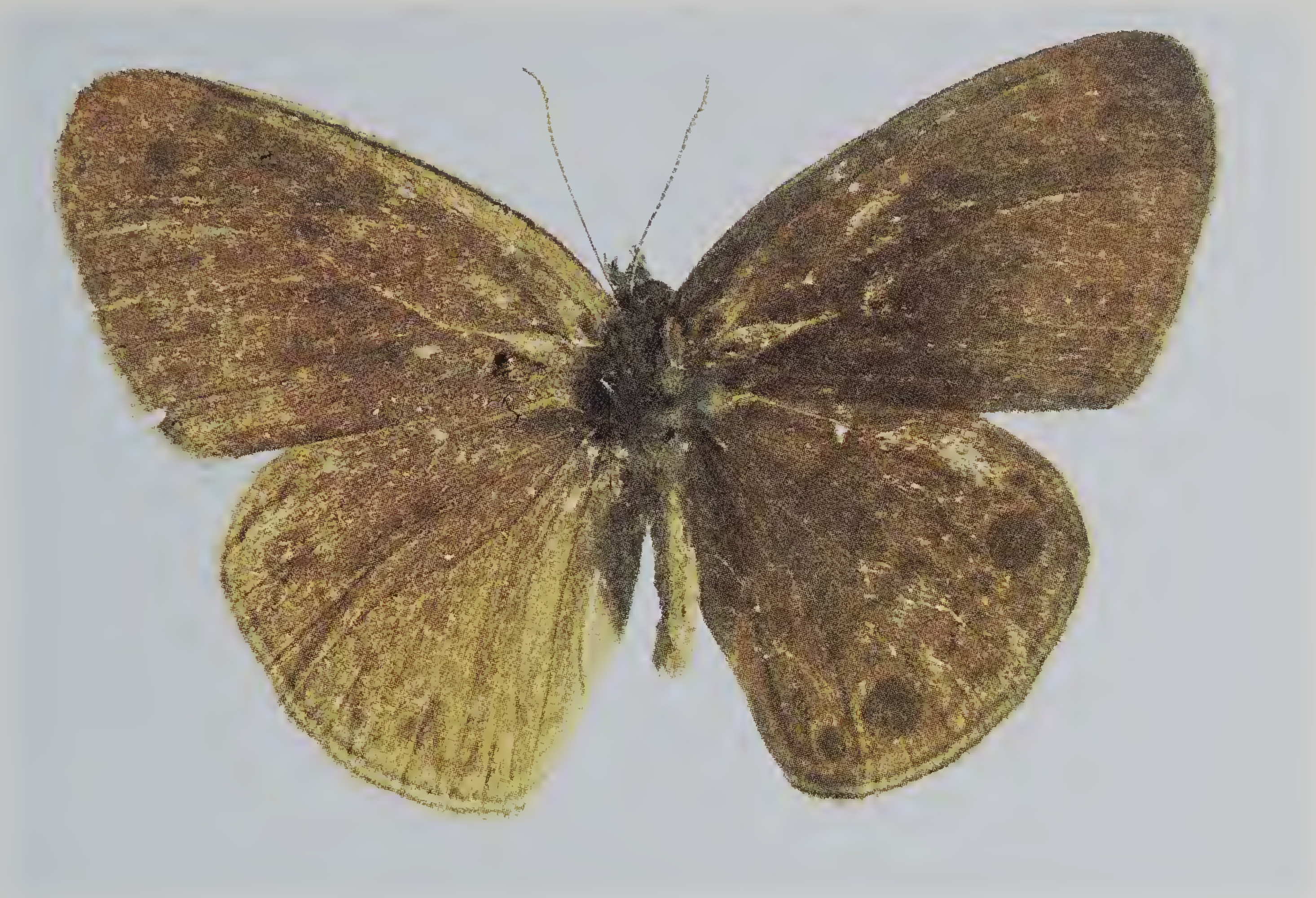
Habitat: Wooded areas.

Natural History: Bivoltine. Larvae feed on grasses. Fourth instars overwinter. Adults rarely visit flowers, but take moisture and nourishment from plant sap and ripe fruit. Males patrol in search of females, usually over grassy sites of the forest understory.

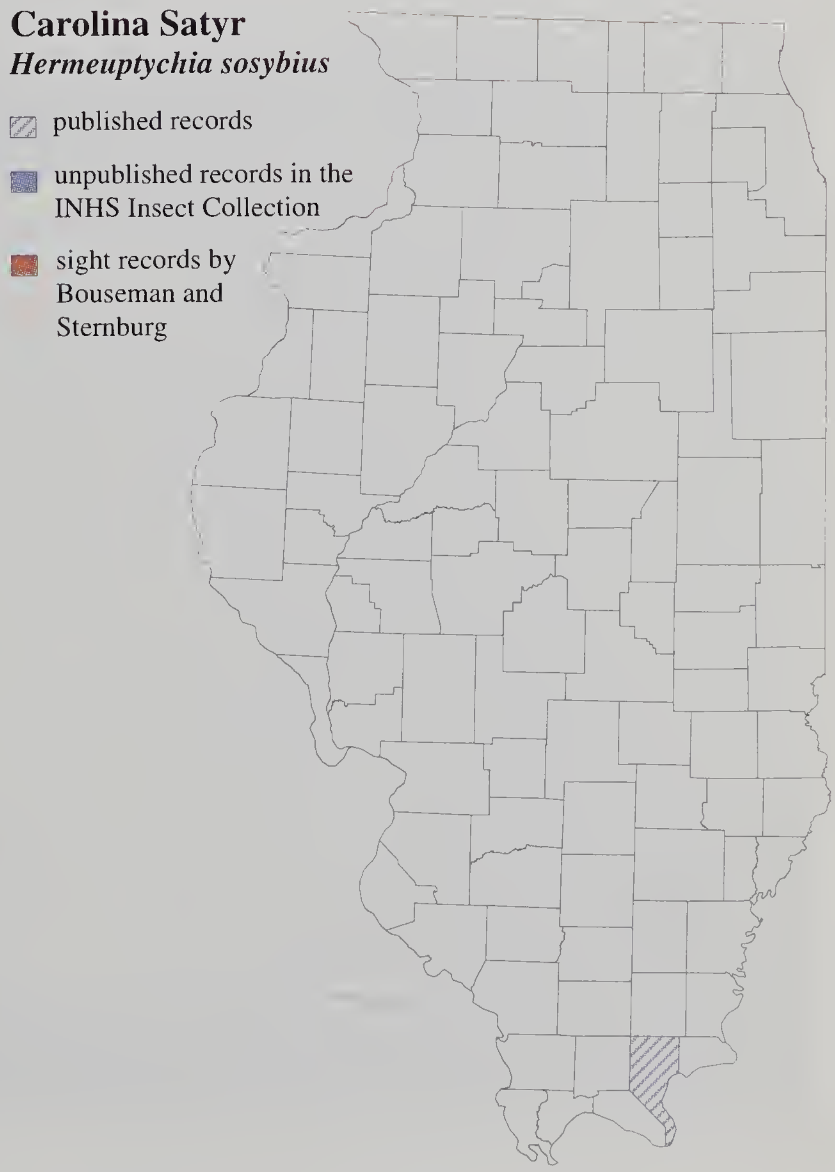
Status: Unknown. One of us (J.K.B.) collected one specimen of the Carolina Satyr in Pope County in 1994. This was the first Illinois record in well over a century.



Male, Carolina Satyr, underside, Liberty County, FL.



Male, Carolina Satyr, upperside, Tangipahoa Parish, LA.


Carolina Satyr
Hermeuptychia sosybius
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Little Wood Satyr — Nymphalidae, Satyrinae

Megisto cymela (Cramer)

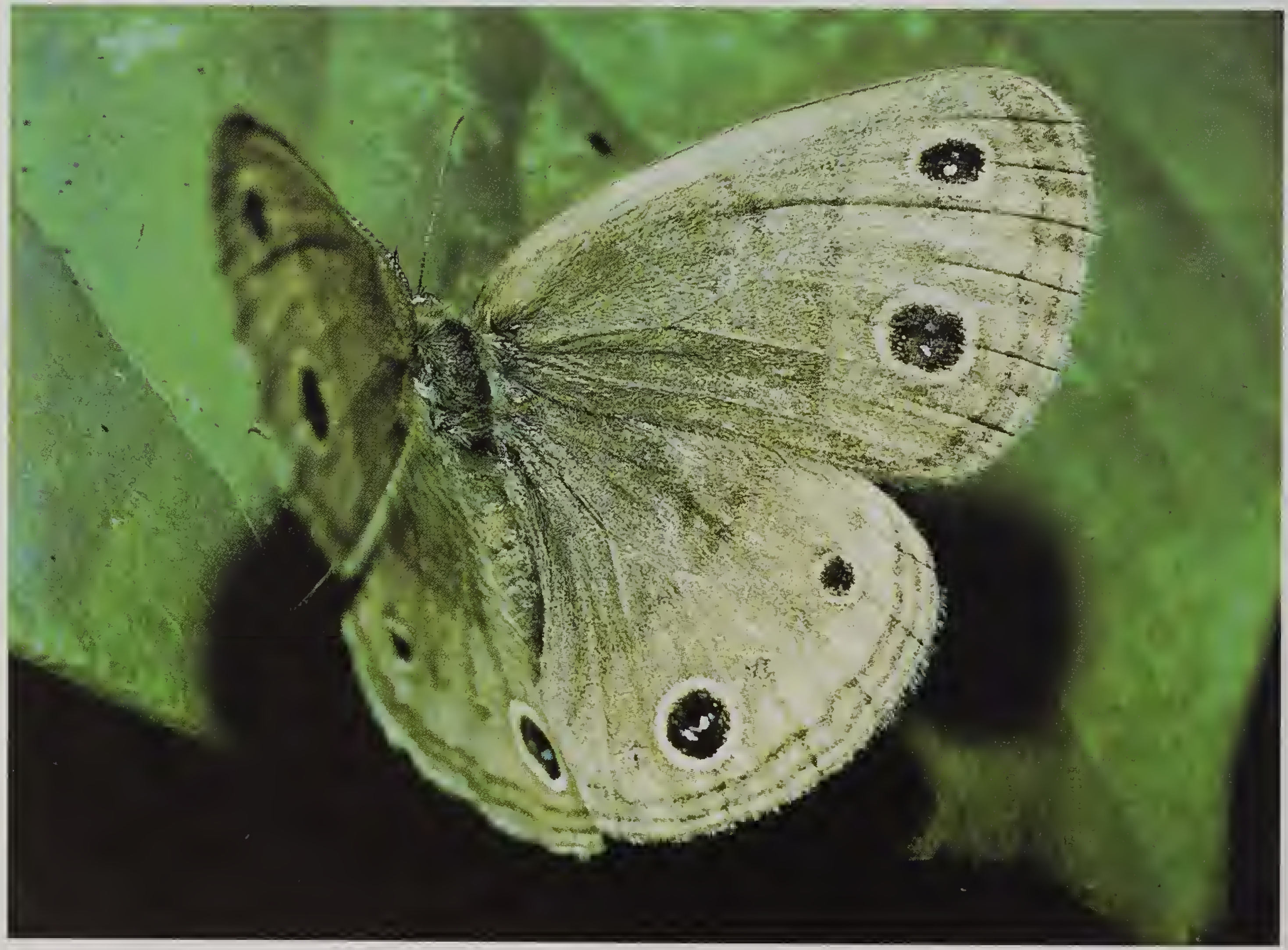
Description: Wingspan 1.6–2.0 in. Sexes similar. Upperside brown with two black with yellow-margined eyespots on each wing. The pattern is repeated on the underside with the addition of several transverse dark lines.

Similar Species: The Carolina Satyr has no eyespots on the upper wing surface.

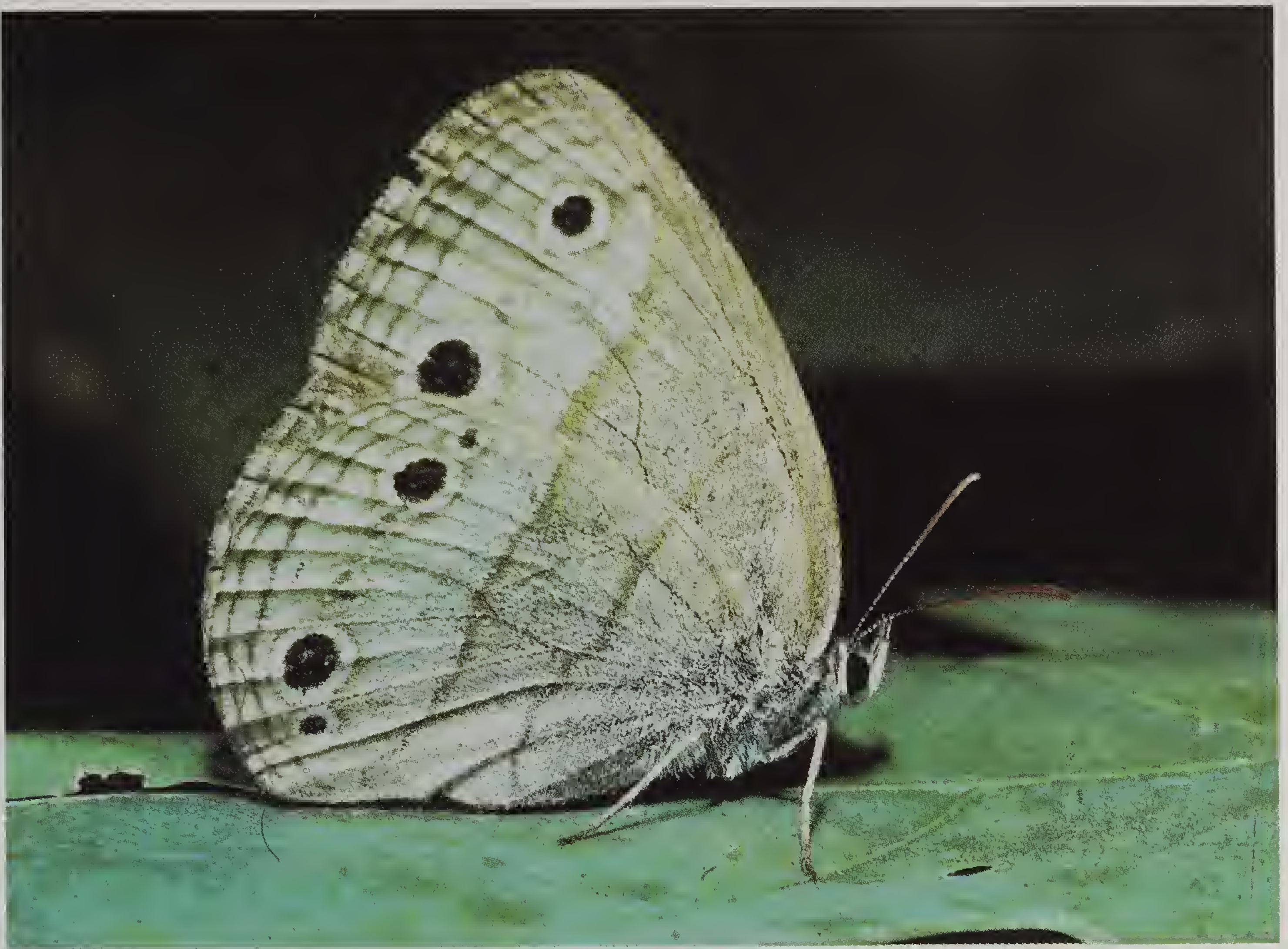
Habitat: Wooded areas, along paths, roadsides, strays to open areas.

Natural History: Univoltine with a long emergence and flight season. The species overwinters as fourth instars. Larvae feed on various forest grasses. Adults feed at sap flows and on ripe or rotten fruit. This is a patrolling species, with males flying in search of females.

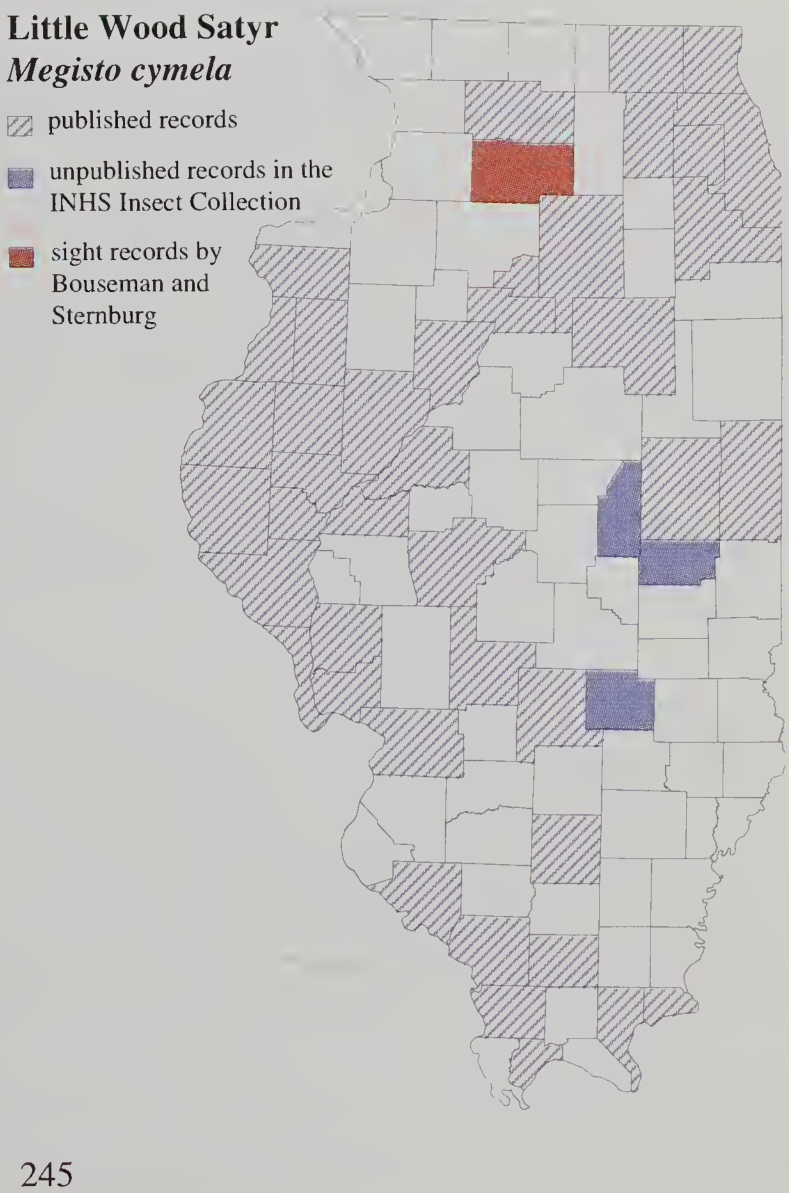
Status: Common and widely distributed statewide and found in almost any area where there are woods. Also found along streams, in wood lots, and in forests in general.



Female, Little Wood Satyr, Piatt County, IL.



Female, Little Wood Satyr, Piatt County, IL.



Little Wood Satyr
Megisto cymela

▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Common Wood Nymph — Nymphalidae, Satyrinae

Cercyonis pegala (Fabricius)

Description: Wingspan 1.8–3.0 in. Sexually dimorphic. Locally variable. Illinois populations vary in the presence and extent or absence of a forewing yellow band enclosing and surrounding the two eyespots of each forewing. These eyespots are dark with blue centers and will have yellow margins if the larger yellow band is absent. There may or may not be eyespots on the upperside of the hindwing, and on the underside, anywhere from one or two to six eyespots may be present. Males are darker brown than the females and generally much smaller. In Du Page County where one of the authors (J.G.S.) lived for many years, yellow-banded individuals were absent. In Piatt County at Allerton Park, both forms, that is, with or without the yellow band, occur flying together in a restored open prairie area. Many individuals are intermediate. At another site in Lee County, many females have a weakly developed yellow band, but males tend not to have one. The subspecific name *C.p. nephele* has been used but not all specimens conform to its description.

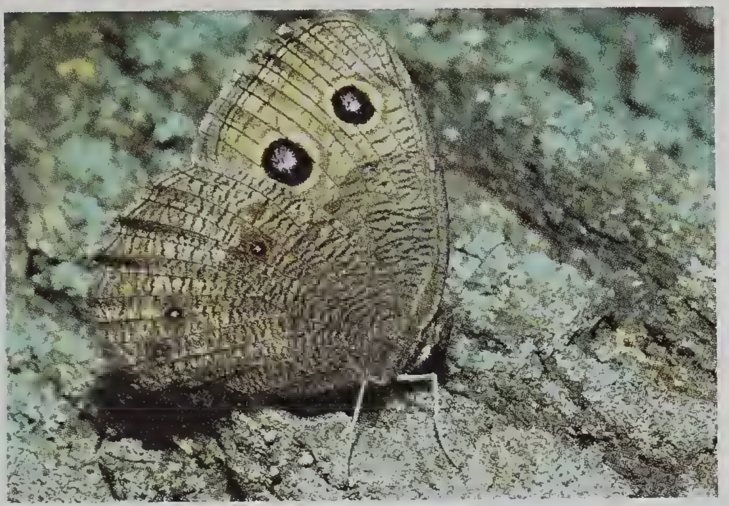
Similar Species: None in Illinois.

Habitat: Open woods, meadows, brushy areas, prairies, old fields and the like.

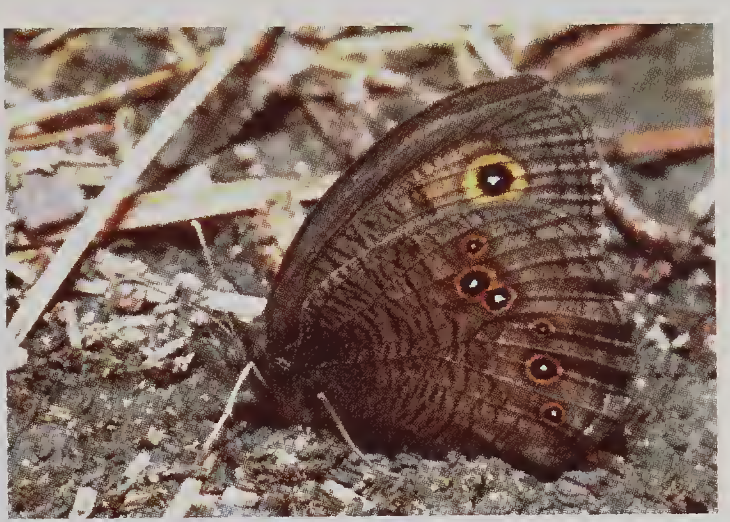
Natural History: Univoltine, with a long flight season. Adults have the typical bouncing flight of satyrids, and an amazing ability to navigate through tall grass and other prairie vegetation. Males patrol in search of females. Eggs are laid on grasses. After hatching, the larvae go into winter quarters. Feeding and development take place through the spring months. The adults begin to emerge in June. Adults nectar on bee balm, blazing star, and other prairie plants. They also feed at ripe fruit and sap flows, especially if fermentation takes place, and at damp sites on the ground.

Status: Often common, but sometimes uncommon, in suitable habitats. Statewide but somewhat local.

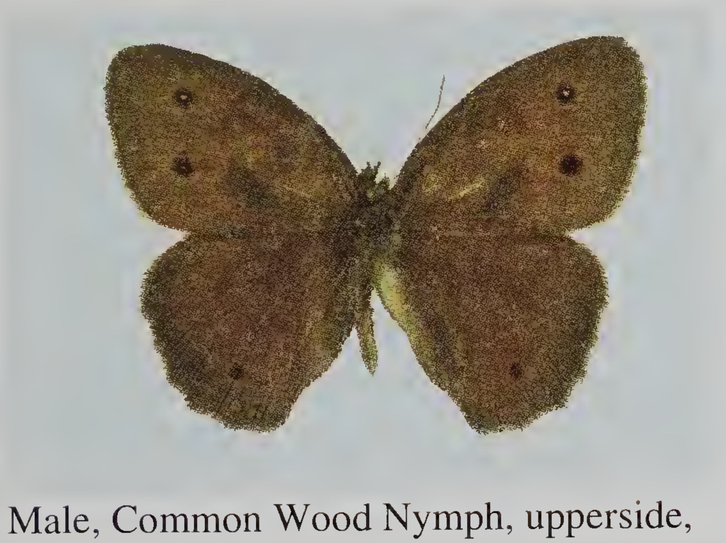
Remarks: The variability of this species has resulted in many names in the literature describing new subspecies and species. Because of the mix of forms in Illinois, it seems best to regard the state's population as one breeding entity, and not consisting of two or more subspecies. The type locality of subspecies *olympus* is Chicago. Irwin and Downey (1973) conclude that all Illinois specimens should be referred to by this subspecific name.



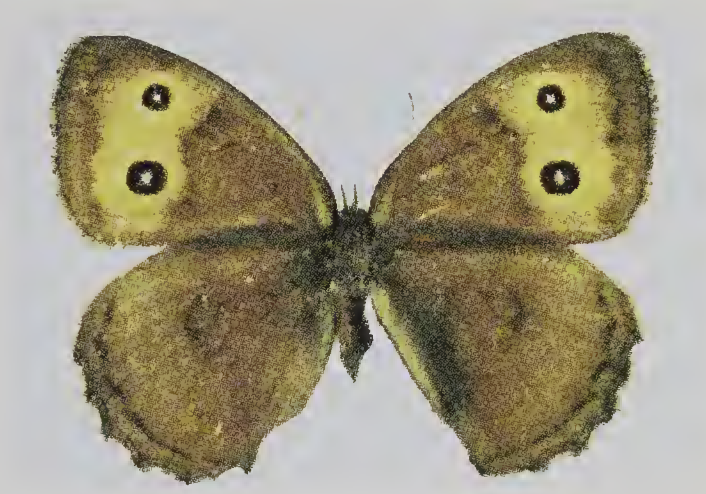
Female, Common Wood Nymph, Piatt County, IL.



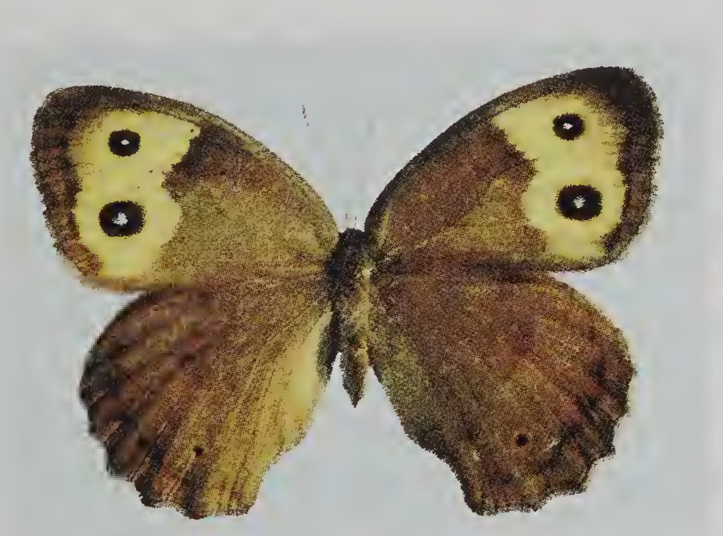
Male, Common Wood Nymph, Piatt County, IL.



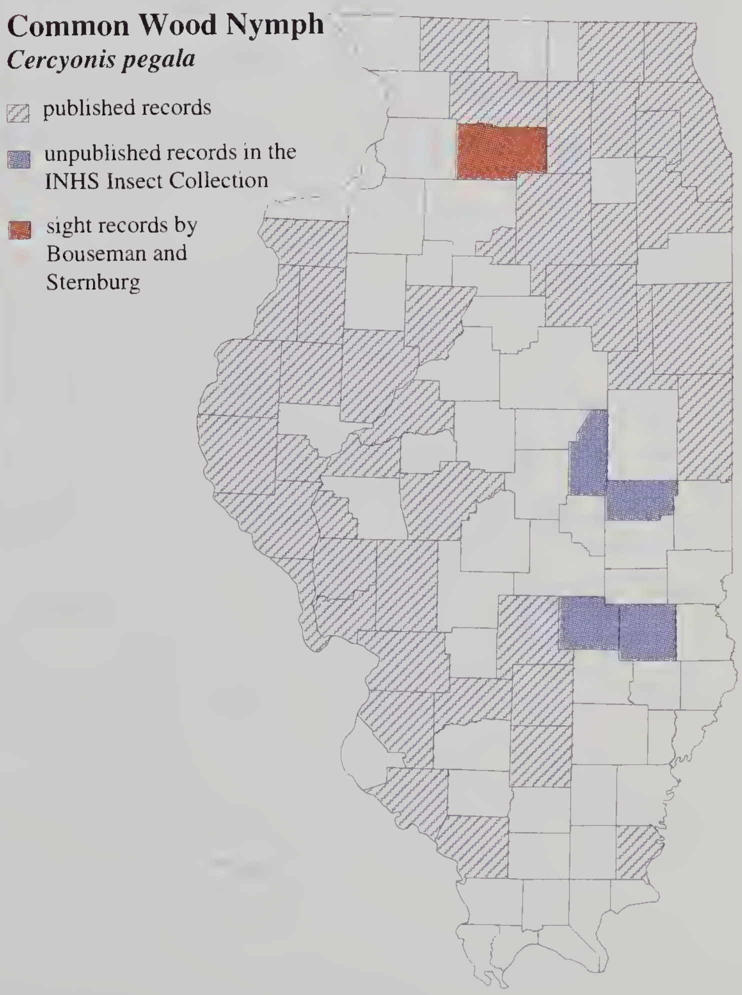
Male, Common Wood Nymph, upperside, Piatt County, IL.



Female, Common Wood Nymph, upperside, Piatt County, IL.



Female, Common Wood Nymph, upperside, yellow banded form, Piatt County, IL.



Common Wood Nymph
Cercyonis pegala
▨ published records
🟦 unpublished records in the INHS Insect Collection
🟥 sight records by Bouseman and Sternburg

Glossary

Antennal club	enlarged distal end of an antenna
Androconia	glandular wing scales of the male that produce a scent that stimulates the female during mating
Aristolochic acid	an organic acid found in plants of the genus *Aristolochia*, sequestered in the tissues of feeding caterpillars
Batesian mimicry	designates mimicry when the model is unpalatable, poisonous, or dangerous, and the mimic is palatable and harmless
Bivoltine	two generations per year
Chorion	shell of an insect egg
Chrysalis	the pupa of a butterfly
Diapause	arrested development
Galea	outer lobe of the maxilla, elongated in adult Lepidoptera to form the proboscis
Labial palp	segmented process of the labium, sensory in function, well developed in butterflies
Maxilla	the second of the paired mouthparts of insects, sensory in function and an adjunct to the mandibles in feeding
Müllerian mimicry	both model and mimic unpalatable, poisonous, or dangerous, reinforcing the effect on predators
Multivoltine	many generations per year
Osmeterium	an eversible gland in the prothorax of a swallowtail larva that releases a foul odor when the insect is disturbed
Polyphagous	feeding on a variety of different kinds of plants
Pterostigma	a patch of androconia on the wing
Pupa	the resting stage during which transformation from larva to adult occurs
Stigma	a patch of androconia usually on the wing as a pterostigma
Univoltine	one generation per year

Checklist and Ecological Ratings

We have followed Miller's (1992) list in the choice of common names. The scientific names follow closely those used by Opler and Malikul (1998). The numbers in parentheses refer to the environmental significance code (see page 252 for explanation).

Family Papilionidae

Subfamily Papilioninae

Tribe Troidini

——— *Battus philenor* (Linnaeus) Pipevine Swallowtail (6)

Tribe Papilionini

——— *Papilio polyxenes asterius* Stoll Black Swallowtail (5)
——— *Papilio joanae* J.R. Heitzman Ozark Swallowtail (8)
——— *Papilio (Heraclides) cresphontes* Cramer Giant Swallowtail (8)
——— *Papilio (Pterourus) glaucus* Linnaeus Tiger Swallowtail (6)
——— *Papilio (Pterourus) troilus* Linnaeus Spicebush Swallowtail (8)

Tribe Leptocircini

——— *Eurytides marcellus* (Cramer) Zebra Swallowtail (8)

Family Pieridae

Subfamily Pierinae

——— *Pontia protodice* (Boisduval and LeConte) Checkered White (5)
——— *Pieris napi oleracea* (Harris) Mustard White (8)
——— *Pieris rapae* (Linnaeus) Cabbage White (1)
——— *Anthocharis midea* (Hübner) Falcate Orangetip (8)
——— *Euchloe olympia* (W.H. Edwards) Olympia Marble (9)

Subfamily Coliadinae

——— *Colias eurytheme* Boisduval Orange Sulphur (5)
——— *Colias philodice* Godart Clouded Sulphur (5)
——— *Colias cesonia* (Stoll) Dog Face Sulphur (4)
——— *Phoebis sennae eubule* (Linnaeus) Cloudless Sulphur (4)
——— *Phoebis philea* (Johansson) Orange-barred Sulphur (2)
——— *Eurema mexicanum* (Boisduval) Mexican Yellow (3)
——— *Eurema lisa* (Boisduval and LeConte) Little Yellow (4)
——— *Eurema nicippe* (Cramer) Sleepy Orange Sulphur (4)
——— *Nathalis iole* Boisduval Dainty Sulphur (4)

Family Riodinidae

Subfamily Riodininae

——— *Calephelis mutica* McAlpine Swamp Metalmark (10)
——— *Calephelis borealis* (Grote and Robinson) Northern Metalmark (8)

Family Lycaenidae

Subfamily Theclinae

______ *Satyrium titus* (Fabricius) Coral Hairstreak (9)
______ *Satyrium liparops strigosum* (Harris) Striped Hairstreak (8)
______ *Satyrium calanus falacer* (Godart) Banded Hairstreak (7)
______ *Satyrium caryaevorum* (McDunnough) Hickory Hairstreak (8)
______ *Satyrium edwardsii* (Grote and Robinson) Edwards' Hairstreak (8)
______ *Satyrium acadicum* (W.H. Edwards) Acadian Hairstreak (9)
______ *Calycopis cecrops* (Fabricius) Red-banded Hairstreak (5)
______ *Callophrys polios* (Cook and Watson) Hoary Elfin (10)
______ *Callophrys irus* (Godart) Frosted Elfin (10)
______ *Callophrys henrici* (Grote and Robinson) Henry's Elfin (8)
______ *Callophrys niphon* (Hübner) Pine Elfin (8)
______ *Callophrys gryneus* (Hübner) Olive Hairstreak (5)
______ *Atlides halesus* (Cramer) Great Purple Hairstreak (8)
______ *Fixsenia favonius ontario* (W.H. Edwards) Northern Hairstreak (8)
______ *Parrhasius m-album* (Boisduval and LeConte) White M Hairstreak (8)
______ *Strymon melinus* Hübner Gray Hairstreak (5)

Subfamily Lycaeninae

______ *Lycaena hyllus* (Cramer) Bronze Copper (5)
______ *Lycaena dione* (Scudder) Gray Copper (9)
______ *Lycaena helloides* (Boisduval) Purplish Copper (5)
______ *Lycaena phlaeas americana* Harris American Copper (5)

Subfamily Polyommatinae

______ *Leptotes marina* (Reakirt) Marine Blue (2)
______ *Hemiargus isola* (Reakirt) Reakirt's Blue (3)
______ *Lycaeides melissa samuelis* Nabokov Karner Blue (10)
______ *Everes comyntas* (Godart) Eastern Tailed-blue (5)
______ *Glaucopsyche lygdamus couperi* Grote Silvery Blue (8)
______ *Celastrina ladon* (Cramer) Spring Azure (7)
______ *Celastrina neglecta* (W. H. Edwards) Summer Azure (6)
______ *Celastrina ebenina* (W.H. Edwards) Dusky Azure (8)

Subfamily Miletinae

______ *Feniseca tarquinius* (Fabricius) Harvester (7)

Family Nymphalidae

Subfamily Libytheinae

______ *Libytheana carinenta bachmanii* (Kirtland) Snout Butterfly (4)

Subfamily Charaxinae

_____ *Anaea andria* Scudder Goatweed Butterfly (7)
_____ *Anaea aidea* (Guérin-Méneville) Tropical Leafwing (2)

Subfamily Apaturinae

_____ *Asterocampa celtis* (Boisduval and LeConte) Hackberry Butterfly (6)
_____ *Asterocampa clyton* (Boisduval and LeConte) Tawny Emperor (6)

Subfamily Limenitidinae

_____ *Limenitis arthemis astyanax* (Fabricius) Red-spotted Purple (6)
_____ *Limenitis arthemis arthemis* (Drury) White Admiral (6)
_____ *Limenitis archippus* (Cramer) Viceroy (6)

Subfamily Nymphalinae

_____ *Vanessa atalanta* (Linnaeus) Red Admiral (6)
_____ *Vanessa virginiensis* (Drury) American Painted Lady (5)
_____ *Vanessa cardui* (Linnaeus) Painted Lady (4)
_____ *Junonia coenia* (Hübner) Buckeye (4)
_____ *Nymphalis vau-album j-album* (Boisduval and LeConte) Compton Tortoiseshell (3)
_____ *Nymphalis milberti* (Godart) Milbert's Tortoiseshell (3)
_____ *Nymphalis antiopa* (Linnaeus) Mourning Cloak (6)
_____ *Polygonia interrogationis* (Fabricius) Question Mark (6)
_____ *Polygonia comma* (Harris) Comma (6)
_____ *Polygonia faunus* (W.H. Edwards) Green Comma (3)
_____ *Polygonia progne* (Cramer) Gray Comma (6)
_____ *Chlosyne nycteis* (Doubleday and Hewitson) Silvery Checkerspot (7)
_____ *Chlosyne gorgone carlota* (Reakirt) Gorgone Checkerspot (5)
_____ *Chlosyne harrisii* (Scudder) Harris' Checkerspot (9)
_____ *Phyciodes tharos* (Drury) Pearl Crescent (5)
_____ *Phyciodes batesii* (Reakirt) Tawny Crescent (2)
_____ *Euphydryas phaeton phaeton* (Drury) Baltimore (10)
_____ *Euphydryas phaeton ozarkae* Masters Baltimore (10)

Subfamily Heliconiinae

_____ *Boloria selene myrina* (Cramer) Silver-bordered Fritillary (9)
_____ *Boloria bellona* (Fabricius) Meadow Fritillary (9)
_____ *Speyeria idalia* (Drury) Regal Fritillary (9)
_____ *Speyeria atlantis* (W.H. Edwards) Atlantis Fritillary (2)
_____ *Speyeria diana* (Cramer) Diana Fritillary (8)
_____ *Speyeria cybele* (Fabricius) Great Spangled Fritillary (5)
_____ *Speyeria aphrodite* (Fabricius) Aphrodite Fritillary (5)
_____ *Euptoieta claudia* (Cramer) Variegated Fritillary (4)
_____ *Agraulis vanillae* (Linnaeus) Gulf Fritillary (3)

Subfamily Danainae

______ *Danaus plexippus* (Linnaeus) Monarch (4)
______ *Danaus gilippus strigosus* (Bates) Queen (2)

Subfamily Satyrinae

______ *Enodia anthedon* A.H. Clark Northern Pearly-eye (7)
______ *Enodia portlandia* (Fabricius) Southern Pearly-eye (8)
______ *Enodia creola* (Skinner) Creole Pearly-eye (8)
______ *Satyrodes eurydice* (Johansson) Eyed Brown (10)
______ *Satyrodes appalachia* (R.L. Chermock) Appalachian Brown (10)
______ *Cyllopsis gemma* (Hübner) Gemmed Satyr (8)
______ *Hermeuptychia sosybius* (Fabricius) Carolina Satyr (8)
______ *Megisto cymela* (Cramer) Little Wood Satyr (7)
______ *Cercyonis pegala* (Fabricius) Common Wood Nymph (5)

Code for Environmental Significance

1. An introduced species.
2. A rare vagrant.
3. A migrant that rarely breeds in Illinois.
4. A migrant that regularly breeds in Illinois.
5. A species with weedy larval hosts, found in waste areas, old fields, pastures, roadsides.
6. A species of urban forests and woodlands, as well as forests.
7. A common species restricted to forests.
8. A local species of forests.
9. A local species of prairies and open grasslands.
10. A very local species of marshes, dunes, and other restricted habitats.

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